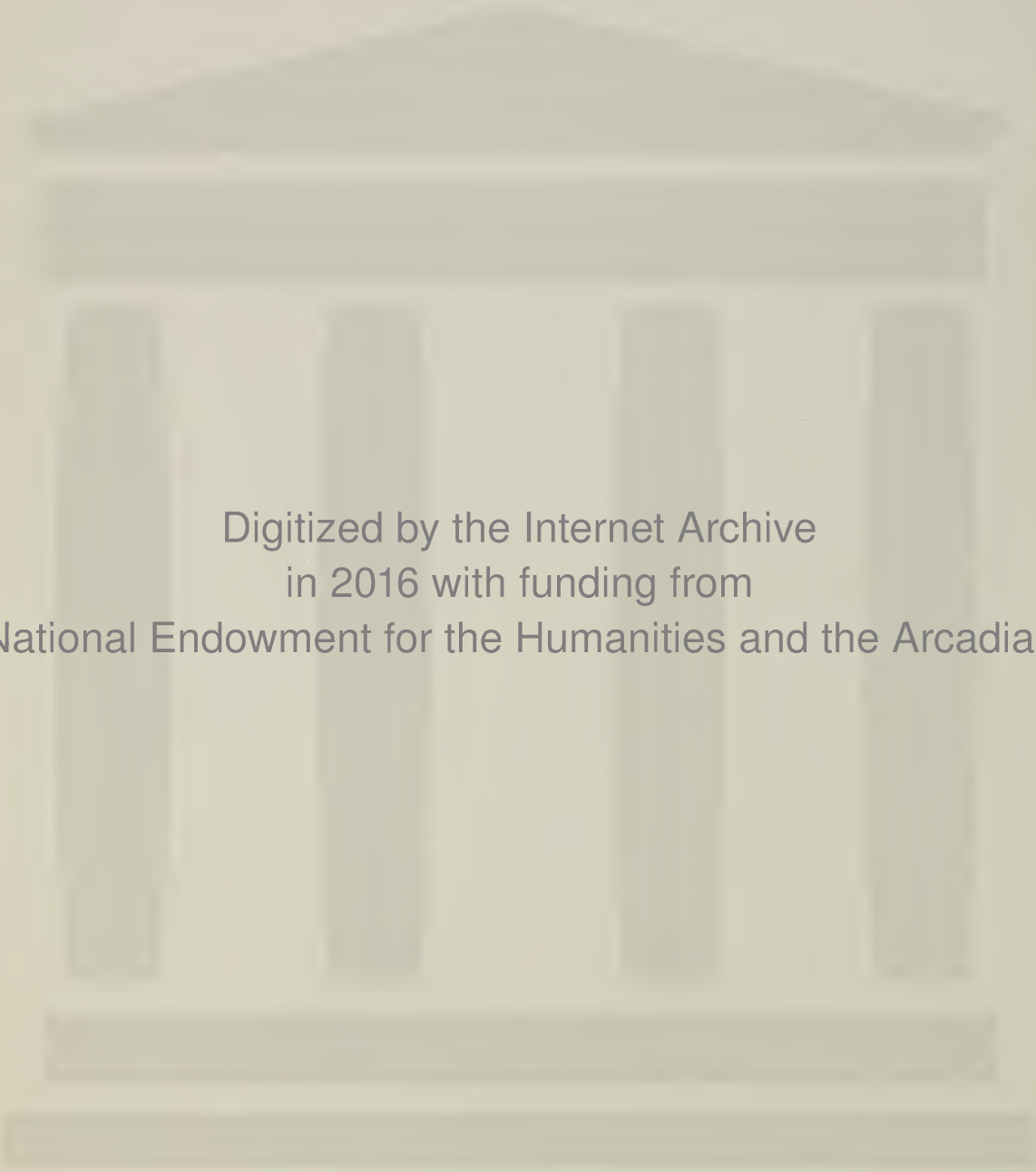




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**Medical  
Monthly**

January, 1973 Volume 100





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*—George Sarton, from "The History of Medicine Versus the History of Art"*

Are combination drug  
products useful in treatment  
involving concomitant use  
of two or more drugs?

Opinion

Results of a questionnaire to  
7,000 physicians:

62.9%

Believe combination drug  
products are useful.

13.8%

Do not believe combination drug  
products are useful.



# Are combination drug products useful in treatment involving concomitant use of two or more drugs

## Opinion & Dialogue

### Doctor of Medicine

Louis Lasagna, M.D.  
Professor and Chairman  
Department of  
Pharmacology & Toxicology  
University of Rochester  
School of Medicine  
and Dentistry



Obviously, many drugs are given concomitantly. Whether it makes sense to combine medications in one preparation, be it capsule, tablet, or liquid, is a question that can be answered only by examining the advantages and disadvantages in the individual case.

Among the advantages is, first of all, convenience. The more medications that are taken concurrently and the more complicated the directions, the less likely the patient is to take medications accurately. From the standpoint of convenience and accuracy, and economy as well, you can make an important case for putting medications together in one preparation, as long as they are compatible.

By the same token, when you prescribe a properly tested and rational combination, you should have less worry about pharmaceutical or pharmacological compatibility — and about reasonable dosage ratios as well. Compatibility of the formulation should be demonstrated in the laboratory and clinic before the product is available for prescription—which is more than can usually be said for

the physician's own spontaneous creations. And, the dosage ratios employed in rational precompounded combinations are designed to meet the needs of substantial numbers of "typical" patients.

There is no doubt that many "atypical" patients are to be found, and for them the prefabricated combination must be rejected. But that hardly argues for eliminating rational combinations from the market. Think, for example, of the problems that would arise if the components of widely accepted combinations, like the oral contraceptives and the diuretic-antihypertensives, always had to be prescribed, purchased and ingested separately.

One disadvantage that comes to mind is some doctors' unawareness of the ingredients a given combination contains. For example, a doctor might know that a patient is allergic to aspirin but forget that a certain analgesic mixture, which he knows only by its trade name, contains aspirin. His prescription, then, causes considerable discomfort, to say the least. This problem is a function of physician education, rather than of combination therapy as such. Improving doctors' knowledge about all medicaments they prescribe is a problem that deserves tackling on its own.

Another accusation leveled at combination drugs is that they encourage sloppiness of diagnosis and treatment. In many cases, however, a combination may prove to be the most effective choice. A good ex-

ample of the usefulness of combinations appears in a recent article in the *Journal of Chronic Diseases* on the efficacy and side effects of an antihypertensive containing three ingredients, in which the track records of the combination drug and the individual ingredients were compared. Interestingly enough, whether the drugs were given individually or together, incidence and severity of side effects were the same. But blood pressure control was invariably better when the drugs were taken in one combination tablet than when they were taken separately (in "titratable" dosage) or in two or three different tablets.

Deciding which combinations constitute rational therapy obviously leads to a discussion of who is to determine which should be used and which should not. Realistically, I think combinations should be evaluated somewhat differently if they are old and established or new and untried.

In today's regulatory atmosphere, there is no possibility of a new combination being put on the market without a substantial amount of acceptable evidence in the form of controlled trials that show it to be safe and efficacious. On the other hand, I believe a different set of standards should apply to combination preparations that have been around for a long time. In other words, physician acceptance over a long period should be given some weight as evidence of the efficacy and safety of these drugs.

The FDA, however, does not seem to share this attitude. It often requires, for these older products, controlled trials that will monopolize the time of already overtired investiga-

tors and cost a great deal of money. I wish we could agree on a "grandfather clause" approach to preparations that have been in use for a number of years and that have an apparently satisfactory track record.

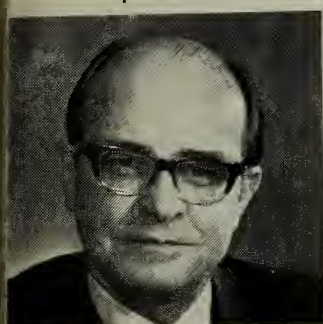
For example, I think some of the antibiotic combinations that were taken off the market by the FDA performed quite well. I am thinking particularly of penicillin-streptomycin combinations that patients—especially surgical patients—were given in injection. This made for less discomfort for the patient, less demand on nurses' time, and few opportunities for dosage errors. To take such preparation off the market doesn't seem to be good medicine, unless actual damage showed a great deal of harm from the injection (rather than the preparation) of the combination.

The point that should be emphasized is that there are both rational and irrational combinations. The real question is, who should determine which is which? Obviously, the FDA must play a major role in making this determination. In fact, I don't think it can avoid taking the ultimate responsibility, but it should enlist the help of outside physicians and experts in assessing the evidence and in making the ultimate decision.



# Maker of Medicine

W. Clarke Wescoe, M.D.  
President  
Winthrop Laboratories



If two medications are used effectively to treat a certain condition, and it is known that they are compatible, it clearly is useful and convenient to provide them in one dosage form. It would make no sense, in fact it would be pedantic, to insist they always be prescribed separately. To avoid the appearance of pedantry, the "expert" derides the combination because it is a fixed dosage form. When the "expert" invokes the concept of fixed dosage form he obscures the fact that single-ingredient pharmaceutical preparations are also fixed dosage forms. By a singular semantic exercise he implies a pejorative meaning to the term "fixed dose" only when he uses it with respect to combinations. What is ignored is the simple fact that only in the rarest of circumstances does any physician attempt to titrate an exact therapeutic response in his patient. It is quite possible that some aches and pains will respond to 500 mg. of aspirin yet that fact does not militate against the usual dose being 650 mg.

The other semantic play often called into play is to describe a combination product as rational or irrational.

Take antibiotic mixtures, the source of much of the criticism generated against

combinations generally. Obviously, no one should be exposed willy-nilly to the potential side effects of two or three antibiotics when only one is needed. At the same time there are cases where it is prudent to prescribe more than one. The clinician is the judge in these circumstances, as he should be.

There is no clear definition of the word rational. Most persons, I suppose, would find it synonymous with reasonable, but in many circumstances it may best be defined as the opinion of those in power at the moment.

Other factors govern combination therapy, not the least of which has been its broad use by practicing physicians anxious to achieve convenience in prescribing, to reduce medication error, and to save money for their patients. Combinations clearly have met the test on all three counts.

I have been impressed by studies showing that the rate of error climbs markedly with the number of medications to be taken, even with sophisticated patients. When medically justified, therefore, this factor alone supports the logic of combination therapy.

The cost argument for combinations appears to be irrefutable. In 1971, R. A. Gosselin studied the 71 combination products (excluding oral contraceptives) among the 200 most prescribed drugs. The study found that if all 71 products were discontinued, and if each ingredient in these combinations were prescribed separately, the price of medicines to patients would jump by \$443.2 million on a national basis! At a time when the cost of medical care is under so much fire, it would be nonsensical to boost costs without clearly irre-

futable medical reasons.

The part played by government on this question, of course, is fundamental. The FDA should play a role in determining which combinations are reasonable. That role, as defined by law and regulation, is to ensure that any medication on the market is safe and effective in line with its label claims. Certainly combinations are entitled to as much consideration as single entities—neither more nor less. So long as the addition of one drug to another does not make either less safe, or less effective, so long as they are compatible in a formulation, we have a reasonable product. It makes no sense to recommend the use of two products for certain conditions and to deny their being combined in a single form. An unhappy side effect of the problem concerns the efficacy panel discussions of many products submitted for review. The term "effective, but" has been freely interpreted to mean "ineffective" in toto, regardless of the merit of the individual drugs. This interpretation has placed numerous useful combination products in needless jeopardy.

In reading the actual reports of the review panels, it seems clear that some of the ratings were based less on scientific research and clinical observation than on the "informed" opinions of the panelists. These "informed" opinions were accepted at face value, while

the "informed" opinions of others who had used the products were rejected. All of this put combination products into a sort of scientific never-never land.

It should be kept in mind by all, government as well as others involved in our health care system, that advances in therapy are seldom made in leaps and bounds but rather by small painstaking steps—and that some of these steps have resulted from research in combination drugs as well as with single entities. Given the near-infinite biologic variation in patient response, this is hardly surprising to clinicians. It should not be to regulatory agencies either.

In the end, the practicing physician is in the best position to decide if a particular combination makes sense. Such a decision should not be made exclusively by those whose responsibility for continuing clinical care is limited. Clinicians are the best judges of efficacy because the ultimate proof of any product's effectiveness is acceptance by physicians who have observed its actions in patients over time. The corollary statement may be made about over-the-counter medicines, which would not long survive if they failed to afford the relief the user anticipates. That the antihistamine in a "cold" remedy may not *always* be necessary is no reason to proscribe the combination generally.

## Opinion & Dialogue

What is your opinion, doctor?

We would welcome your comments.



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### Guest Editorial . . . .

#### Candid Thoughts

or

#### "Liddle" known thoughts of dubious interest—

**O**UR GOVERNMENT, any government, desires and must keep its productive citizens alive and well, if only from a business standpoint. A hale and hearty citizen is a productive worker with a healthy family which does not incur an illness-caused financial drain; he is able to pay his taxes and not be a drain on public funds.

We hear of a "doctor shortage", and the need to alleviate it. I feel that we do not have a deficiency of physicians, except in time and place. In our not too distant past, how many physician man-hours were freed by the small-pox vaccine and by public health supervision of our drinking water sources? How many physician man-hours were later freed by the development and use of diphtheria, tetanus, and pertussis vaccines? More recently, polio vaccines have not only obliterated dread of this terrible disease, but have also freed more physician man-power hours. The very recently developed measles vaccine has added untold time to our productivity and the rubella and mumps vaccines promise to add more. In addition to these *medical* advancements, how many more productive working hours may possibly be added by using physicians' assistants and other aides, by reducing environmental pollution, by nutritional improvements, etc.?

When trainmen and airline personnel strike, when truly essential workers such as policemen, postmen, and even garbage workers strike, observe the marked disruption of our finely attuned society. Imagine the consternation that would be caused by a *doctors' strike*, and such is not impossible as exemplified by events in France, Canada, and Great Britain. This could happen here if our physicians should be pushed to the wall by those who profess the public good but who are motivated by other reasons. We should note that, in each of the foreign instances mentioned, the governments involved suffered the indignity of having to back down in front of an enraged and

determined medical community. After all, bureaucrats, politicians, newspaper publishers, and sociologists are not able to practice a particularly good grade of medicine.

If we, as a nation, can tolerate that one or two percent of our elected, national legislators may not be above reproach in their financial and ethical affairs, why can we not assume that lesser mortals may not also go astray in not dissimilar percentage numbers. I condone my few fellow physicians who wander away no more than I do our equally few, and also astray, public officials.

I do not condone, no, I condemn, my fellow physicians who may overcharge and misrepresent their services. I also condemn those very few who might unnecessarily prolong hospitalization, overtreat, or needlessly prescribe. But here we realize that the judgment of one single "expert" does not suffice to judge the malefactor—he is to be judged only by a jury of his peers. A suspected malfeasant in medical practice cannot be judged by laymen, and would not be so unless the judge or jury would be authorized or self-appointed witch hunters.

We physicians who work 50 to 70 hours a week, plus other uneasy hours of being "on call", have little time left for more conferences, fruitless meetings and such. I feel that we would all be amazed at the physician man-hours lost in our attendance of non-scientific meetings and I wonder that the IRS has not expressed alarm at loss in tax revenues resulting from such meetings.

We know that hospital charges, elevated by the minimum wage laws and other inflationary factors, are responsible for the large bulk of medical care costs. Why then do some men—politicians, not statesmen—direct their fire at the physicians and not at the problems of their own creation? Especially since the physician who is able to earn an income of note is unmercifully taxed on the amount that our social planners deem to be "excessive income". A careful review of our social planners' statements show that they are not interested in production of medical personnel, our efficiency, or the good done by physicians. Instead, they bemoan that doctors make "too much money". Many of our fellow citizens "moon-light" on other jobs, after their scheduled forty hours per week, to make ends meet. Our physicians also "moon-light" but in the work of our profession.

We should emphasize to our critics that a well trained physician, during his many years of training, could have as well earned an engineering degree, and a masters degree, and a law degree, and a Ph.D., *and still* have had time left over! Few physicians begin practice before the age of thirty, and few have a secure practice before the age of thirty-five years. Also, many at

the age of thirty-five, or even older, are still repaying debts to relatives for aid given during the years of training.

Is it then a wonder that such men, motivated by their goals which were reached with such difficulties, are just a bit intolerant of social architects who have given so little in comparison?

Physicians are always conscious of death. We are aware of the published average life spans and we know that we, as a professional group, have a lesser life span than our fellow citizens, as well as a higher divorce and suicide rate. In the broadest sense, I feel that we physicians *give* more than nearly any other group in our society. And, being mostly self-employed, and in the "just above middle class" income group, we feel the bite of taxes greatly. Although we have historically, and without complaint, cared for our indigent population, we are now offered payment by society, under the labels of "Medicare" and "Medicaid", but with reservations and many questions.

When we discuss the future of medical care in our State and nation, and the future role of our profession, we must emphasize several points:

- 1) Politicians and social planners cannot practice medicine.
- 2) Allowing, by statute, medical practice by chiropractors and other cultists does not ensure better medical care or even increase our present medical manpower.
- 3) A physician, like a capital naval ship, cannot be created overnight or on demand. A person who aspires to be a physician today needs to be motivated and a profession under fire loses much of its attraction.
- 4) The American physician is fundamentally individualistic. Anyone who has tried to get three physicians to agree on almost anything must concur with this remark. No system of national medical care, *imposed* on the medical profession, is likely to succeed, and we must see that it would not.

WILLIAM D. LIDDLE, JR., M.D.

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2301 Fall Hill Avenue  
Fredericksburg, Virginia 22401



# President's Address

WILLIAM S. HOTCHKISS, M.D.  
Norfolk, Virginia

**W**HEN ONE ACCEDES TO THIS OFFICE, the first feeling or emotion he has is one of considerable pride. It is the highlight of any man's career, and I am most deeply grateful and humble.

The euphoria lasts for only a few days. It is abruptly replaced by a sense of overwhelming responsibility. This lasts for the next twelve months. This change in attitude is brought about by news of some problem that has developed and requires action by the Society. Such news may come from some other officer or from the Headquarters office. Before getting into a discussion of some of these problems, I would like to emphasize that our Headquarters office solves many more problems than it ever passes on to us. This Society could exist and do well without you or me, but without Bob Howard and his able staff, it would be like a ship without a rudder. There is no doubt in my mind that we have the best Executive Secretary of any of the Societies in the United States.

Last year this House of Delegates passed several specific suggestions and resolutions for action to be taken by the President. Among these were:

1—That he visit as many of the local constituent societies as possible during the year. Every effort has been made to comply with this directive and every invitation that has been received has been accepted, and the visit made. This has been by far the most pleasant duty of the year. I have been very graciously received and the opportunity to exchange information and ideas with the members has been extremely rewarding. The physicians of Virginia are dedicated to the provision of good medical care

to their patients; they are rightfully concerned with the threats of actions, especially at the national level which might limit their ability to maintain high quality care; and they don't hesitate to ask difficult and sometimes unanswerable questions about what the leadership is doing to protect us from this growing governmental onslaught.

2—The second directive was that every effort be made to promote AMA membership and to apprise the members of the advantage both collectively and individually of membership by every physician in Virginia. I have been fully dedicated to this proposition for many years. Several of the states have recognized this advantage to such an extent that they employ the unit membership rule wherein a physician joins and pays dues to the County Society, the State Society and the AMA in a collective or unit fashion. Our AMA membership has grown by 105 members and our State Society membership by 276. We need to keep working on this problem as Virginia is one of the lowest states in percentage of physicians holding membership in the AMA.

3—The third directive was that the President appoint a ten-man committee with one physician from each Congressional District to study the problem of Peer Review and to make recommendations. The Council, after consultation with the local constituent medical societies, was authorized to take appropriate action. Under the able chairmanship of Dr. Robert K. Maddock this has been one of the best and hardest working committees of this year or any other year. The opportunity to work with the EMCRO study group at Charlottesville has been a tremendous advantage. I have attended almost all of the meetings of this committee. The Council has received and reviewed its report, and you and the full mem-

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Presented at the Annual Meeting of The Medical Society of Virginia, Williamsburg, November 5-8, 1972.

bership of the Society will have an opportunity to consider it in one of the Reference Committees. Rather than spend your time enlarging on my views at this time, I will plan to testify before the Reference Committee.

Some of my predecessors have brought us profound philosophical messages. They are most impressive to read and I wish that I could produce the same. Even if I were capable of such a creation, it is my judgment that circumstances preclude such an approach this year. Probably every one who has held this office is convinced that more problems arose during his tenure than during any other. It is entirely possible that most of us are correct, because the problems of organized medicine seem to increase each year. Many unsolved or only partially solved problems are being passed on to my successor, and while they couldn't go into better hands, I feel that it is my obligation to spend my time discussing some of them with you briefly.

### H.M.O.'s

If there is one thing that is being oversold to the American public at this time it is the so called H.M.O. I have spoken and written extensively on this subject during the past year, but would still feel remiss if I didn't at least mention it at this point.

It is being touted by some as the panacea, the answer to all of our problems in the delivery of health care. The entire concept is based on a number of fallacious precepts, and while time does not permit the enumeration of all or even most of them, a few practically demand mention:

1—The first fallacy is that the elimination of any direct fee for medical service is the key to efficient delivery of good care. The theory here is that the requirement to pay a fee is acting as a barrier, and discouraging the patient from seeking medical attention.

a—Almost all of us in this room can testify to the inaccuracy of this concept when we reflect on the frequently exhausting load of patients in our waiting rooms.

b—But even more significant is the statement of Sidney Garfield, in his article in the *Scientific American* in 1970, that he has gradually come to the conclusion that the elimination of the direct fee for service is an even greater threat to the efficient delivery of good medical care, because it clogs up the facilities with what he so aptly termed the "worried well". And Dr. Garfield should certainly be in a position to know because he is the founder of the Kaiser-Permanente Plan.

2—The second fallacious precept is that marvelous new things can be accomplished in the field of preventive medicine. There are several things wrong with this idea:

a—The first is that the care of the human body does not work exactly like the care of an automobile, or any other machine. Actually, with a few exceptions, it is difficult to prove that regularly scheduled examinations pay off in terms of better health or longer life.

b—The second thing wrong with this idea is that the medical profession is presumed to have a vast array of preventive medical services somewhere on the shelf that we are withholding for some unknown reason from the American public. Nothing, of course, could be much further from the truth. The fact is that we are already practicing a good brand of preventive medicine, certainly far better than that practiced in the average H.M.O. The latter with its high patient to physician ratio, and forty-hour physician work week, is hard put to provide even symptomatic care.

But the feature of H.M.O.'s which disturbs me most seriously relates to the incentive factor of the physician to deliver care.

Proponents of this system cite this as an advantage and point out that since the physician receives no more money for additional services, he does not perform too many laboratory or x-ray studies or operations and does not hospitalize the patient without an absolute indication.



What we really have working here is a strong negative incentive or disincentive to provide care. In most H.M.O.'s the physician receives a fixed salary for the year. At the end of the year he receives a bonus which may be several thousand dollars and is based on the profit of the corporation of which he is an employee. It follows that every unit of medical care of any kind which he provides to an enrollee, reduces his total income for the year.

When I get sick I want the doctor who takes care of me to be positively motivated to get all the laboratory and x-ray studies that may be indicated. If hospitalization is indicated, I want him to be ready and willing to admit me. I surely don't want any reverse motivation working with my physician primarily interested in saving money for his corporate employer indirectly for himself.

One could easily spend the next thirty minutes discussing the deficiencies of this type of care, but there are more important matters to which we must direct our attention.

### **Comments on Physicians' Assistants**

The matter of just what The Medical Society of Virginia should do about physicians' assistants, just how much they should be allowed to do, and just what they are capable of doing, remains unsolved. This is an extremely heterogeneous group of people. Their training is in no way standardized and varies from an excellent two-year program at Duke Medical School down to a few months at other training sites. There are over 100 registered training courses for physicians' assistants in the United States.

When one reads of some of the things that they are qualified to do, it is alarming. This includes thoracenteses, proctoscopies and other procedures of similar magnitude. All of us know of major complications, and even occasional death, which have followed these procedures even when they are done by well trained physicians. Such complications will inevitably develop when they are done by the physician's assistant. The medico-legal aspects of such a complication under these circumstances are frightening indeed.

The development and utilization of this type of personnel is quite appealing to many of our legislators, at both the State and Federal levels, who do not understand how medicine is practiced. One basic fact that they fail to grasp is that the first and most fundamental act in rendering medical and surgical care is the assumption of the responsibility for the proper management of the patient and his illness. This the physician's assistant is not prepared to do. The proposal here is not that we oppose this concept altogether, but rather that we proceed with extreme care and try to effect some standardization in their training.

Often when I am spending 30 or 40 minutes in the Record Room completing charts, I reflect on how much better it would be if the physician could be relieved of this type of menial work by the provision of additional clerical help, and in this way have more time remaining to do his own technical procedures.

In some hospitals nurses have gone a long way toward allowing themselves to be relegated to the desk, doing paper work, while others who are less capable, render bedside care. We will be foolish, indeed, if we allow this to happen in our profession, and it may be a bigger threat than we realize. In this connection I am convinced that the best physician's assistant that the medical profession can develop will come from the nursing corps. The nurses have the tremendous advantage of having standardized periods of training; and they have a long history of working under the supervision of the physicians, and of recognizing and adhering to the limitations of their ability. Their full potential has yet to be developed.

### **Continuing Medical Education**

Continuing medical education is an idea whose time has arrived. Several states, including California, Oregon, Tennessee, Pennsylvania, and Massachusetts, have organized state supervised programs of medical education. The idea is rapidly spreading to other states. Early in the year a subcommittee of our Committee on Medical Education was appointed under the chairmanship of Dr. Pinson Neal to



explore the idea of organizing an institute for continuing education under the auspices of The Medical Society of Virginia. While this is still in the exploratory stages, it is a plan which we should follow up and consider for future development. Everything that we do to upgrade medical education will help in our continuing legislative battles with the unscientific cultists in medical care.

### **Legislative Committee**

The Legislative Committee has always been one of our most important committees. Changes which are taking place in our Society are increasing its importance and its duties beyond anything known in the past. The Virginia Assembly now meets every year instead of every other year. Increasing numbers of health related bills are being introduced each year. Our Legislators are men of good will, but it is going to take a major effort to keep them accurately informed of the facts concerning all of this proposed legislation. Only in this way will appropriate laws be passed to preserve our ability to deliver good medical care to the citizens of our State. It is for this reason that I have asked each constituent local society to set up a Legislative Committee. There must be close liaison between the State committee and these local committees. The name of each local committee chairman should be recorded in the Headquarters office, and in the office of the chairman of the State committee. With this type of organization, effective and rapid state wide action can be taken when something unexpected develops during the active session of the Assembly. There is no doubt that the membership of this Society can exert tremendous pressure to good purpose if we organized properly. The Women's Auxiliary is ready and willing to help and their services should be utilized. The really effective time to reach our Legislators is in November and December before the Assembly convenes. The Legislators are so busy that they are practically inaccessible after the formal sessions begin.

The most important assignment facing the Legislative Committee at this time is the strug-

gle against chiropractic. The immediate objective for the 1973 session of the General Assembly should be to have chiropractic treatment removed from the new health insurance program for state employees. The long term objective should be the elimination of chiropractic as a recognized branch of the healing arts in our State. In spite of considerable advice to the contrary, I am convinced that this is an attainable legislative goal. It is conceded that our opponents have a powerful lobby, and are willing to tax themselves huge sums of money to maintain it. But our legislators are men of high purpose, and their vote is not for sale; and when we allow 76 chiropractors to defeat 5,000 licensed physicians at the legislative level, we are forced to admit that we are not properly organized. The case against chiropractic is overwhelming and unassailable, and if we get the facts to our legislators, the facts will overcome their dollars and we will win this struggle for better medical care for the citizens of Virginia.

### **Comments On the Nominating Committee of The Medical Society of Virginia**

You will recall at the last meeting that the Chairman of the Nominating Committee in his report to the House, expressed dissatisfaction in the way the Nominating Committee has functioned in the past. This view is by no means universal, but there is considerable feeling among the membership that there is room for improvement. One of the principal difficulties is that with a ten member Nominating Committee (one man from each Congressional District) there frequently develops a deadlock of five votes each for two well qualified men. As a matter of custom, the Nominating Committee has felt some obligation to continue its deliberations until a choice can be made between these two men. (Actually this is not required and our By-Laws state that the Nominating Committee should bring in nominations of one or more men for each position.)

In any event, the matter was referred to the Future Missions Committee of The Medical

Society for study, and after long and detailed discussion and deliberation this able committee recommended that the Nominating Committee be eliminated. A number of other alternatives were considered and discarded. This recommendation was made to the Council, but the Council did not agree. It was the feeling of Council that the Nominating Committee should be retained as it serves a useful purpose.

If this House agrees with the Council in this recommendation, the following recommendations seem to be in order from this office:

1—It is recommended that the Nominating Committee more frequently avail itself of the alternative of bringing in the names of two men for an office.

2—The second recommendation is that the House of Delegates more frequently exercise the privilege of making nominations from the floor and that members who wish to be candidates for office, be encouraged to seek office by this route if they feel that it is to their ad-

vantage; and that the long standing custom of attaching some stigma to the practice of challenging the nominations of the Nominating Committee in this manner, be completely eliminated from the custom of this Society.

### Closure

One of the most profound passages found in the scripture is Jesus's statement: "He that is greatest among you shall be your servant." This is one of those provocative statements that is not to be taken literally, but was merely Jesus's way of equating leadership and service. This Society is fortunate in having many good servants, and many of them are in the audience today. I am far from the greatest; but you have chosen me to be your chief servant during the past year, and I shall be eternally grateful to you for the privilege.

THANK YOU!

702 Medical Tower  
Norfolk, Virginia 23507

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### LET'S REMINISCE!

#### *Cancer and Erysipulous Toxine.*

The Vienna correspondent of *Medical Press*, September 25th, says: Many cases of malignant sarcoma have become benign after an attack of erysipelas. Emmerich and Scholl have inoculated with serum from affected animals. Czerney, after several experiments, concludes that the sterilized, *but not filtered*, mixed culture from erysipelas and prodigious produce rigors and general disturbance after a few hours. These injections have unquestionably reduced the size of these sarcomatous growths; in several cases, have entirely cured them. Operative means should be the first duty where practicable; but inoculation should not be omitted in inoperable cases.

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# A Medical Smorgasbord

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**I**N JULY 1972, as a member of The Medical Society of Virginia's Scandinavian Adventure, it was my privilege along with 160 others, including families of doctors, to visit Sweden, Finland and Denmark, or more specifically, Stockholm, Helsinki and Copenhagen and their immediate environs. Four days were spent in each capital. In each country we heard the lectures from a member of the respective medical societies. The lectures were primarily of sociological content concerning structure of medicine and health care delivery in each country. These were arranged by International Seminars, a Division of INTRAV, of St. Louis, Missouri.

Obviously, this short acquaintance with medicine in each country has failed to qualify me as an expert on Scandinavian medicine for even a Virginian audience, but it has prompted me to delve into the writings of others on the subject. I was surprised to find a great paucity of material even with the excellent help of Mrs. Janet Minnerath, Director of the Virginia Medical Information System here in Richmond at the M.C.V. Library. The city library, with the help of Miss Gertrude Dyson, yielded additional background for these rather informal remarks on Scandinavian medicine. For the sake of clarity, I will divide these comments into three parts—one for each country visited.

## Sweden

Stockholm is a majestic city situated on the Baltic similarly to Venice on the Mediterranean Sea with canals interlacing its elegant urban layout. It is an expensive city. For instance, a shopping basket worth \$78.35 in New York, today, averages \$121.84 in Stockholm, \$111.94 in Tokyo and \$95.97 in Geneva, according to Sylvia Porter.

Sweden is the most advanced of all the modern free world welfare states and welfarism

is expensive. The Swedish guides were beautiful girls, for the most part, although we had some excellent male guides, but they seemed sad as though they were serving sentence, pleasantly, it is true, but not enjoying living.

Sweden has a total population of only eight million and all citizens have been covered medically from birth until death since 1955, when compulsory health insurance was introduced. Seventeen per cent of the national income is redistributed through the social welfare system, including compulsory medical care. The unit of health care delivery system is the county council which is elected every three years. All medical service is controlled by the county council. Private practitioners are very few, particularly since January 1, 1970. Up until this time the private sector delivered one-third of the ambulant health care. With the new regulation, all hospital physicians were deprived of their rights to see private patients, even in consultations, with the exceptions of the professors. Political appointments for the hospital physicians replaced the appointment based on professional competence. Attempts are being made to buy out private practitioners by providing so many community run ambulant services so that no market will be left for private initiative.

All patients, however, pay seven Krona, about \$1.47, for each visit to the Swedish doctor, while hospital inpatient care is without cost to the patient except for the initial fee of \$1.47. This known as the Seven Krona System instituted in 1970.

There are about 11,000 medical providers in Sweden and 250 specialists, all located in hospitals. This is at the ratio of one doctor to 900 citizens as contrasted to one to 710 in the U.S.A. Ninety per cent of the health care is delivered by the practitioners in well distributed clinics. There are about 2,000 dis-

strict nurses. There are 130 general hospitals in the country with 6,200 beds and 23,000 psychiatric beds.

The Swedish physician works a 40-hour week but may work overtime so that he may earn from 4,000 Krona, or \$800 a month, to 4,500 Krona, or \$900 a month. A so-called head doctor, or specialist, may earn 5,200 Krona, or \$1,040 a month with 3,600 Krona extra, or \$1,760 a month. Unfortunately, at this level of income the income tax is 54%. Any citizen earning \$10,000 pays \$4,600 tax and this does not include local income tax and 10 to 20% sales tax on purchased goods. Inflation has continued at an accelerated rate of 7% per annum and now Sweden is one of the most expensive countries in the world in which to live. Coffee, at least for the tourist, \$1.00 a cup, a drink of Scotch \$3.50.

There are some so-called compensations to the doctor and the citizen. The doctor gets three months vacation each year—37 days plus 52 Sundays. At age 65 he may retire on a 30 to 40% pension based on his average salary over the years. Hospital based physicians accrue vacation time for being on call every fourth week. It is not uncommon to earn 13 to 14 weeks annually and take it all at once. Dr. Hoffman, AMA President, cites one Swedish doctor who became so tired of so much leisure that he took a part-time job in industry, but soon became weary of seeing thirty-five patients a day instead of ten and paying 85% tax rate of his earnings.

Children under 16 receive non-taxable allowances from the government.<sup>1</sup> All medical care is, of course, "free". Dental care is still excepted and Sweden is a mecca for dentists. Nurseries, nursery schools, leisure time centers and camps are "free" or provided at vastly reduced costs. "Free" education is available at university as well as at lower levels. Meals and school supplies are "free". Even school travel allowances are paid by the state. There is practically no unemployment and special training centers are available for those who need it.

Young people, who need it, can get government loans for furniture. The man and

woman don't need to be married, just living together, to qualify. Every mother receives a maternity allowance with extra money for twins. Abortion may be had for the asking. Tenants with children may get help to pay their rent. Old age pensions cover everyone. A woman who feels need for a holiday may get it financed by the government, unless she has above average income. Disabled citizens, even if disabled by too much whiskey, can get considerable help. And so the government is almost completely paternalistic, taking away most of a citizen's earnings and returning to him what it thinks he needs or wants.

Hospital care is expensive, averaging \$100 per day, but this does include everything from medical service to x-rays, consultation, etc. In Sweden there are 1.5 employees per patient as compared with at least 2 to 2.5 in the United States.

Dr. Gunnar Biorck in his address before the 200th anniversary celebration of the New York Hospital summarized Swedish medical plight well as quoted by the Editor of the Archives of Otolaryngology of March 1972, as follows:<sup>5</sup>

"Until January 1, 1970, the Swedish system of medical care worked well. There was compulsory health insurance, free hospital care, discounts on life saving and expensive drugs, and three-fourths of doctor's fees are reimbursed for visits to private practitioners, hospital physicians, and outpatient departments. The system minimized medical bureaucracy and permitted a fairly free choice of doctors. Private practitioners accounted for one-third of ambulatory medical care providing, Dr. Biorck says, 'a reasonable green belt priority, fresh air and possibilities for doctors and patients alike.'

"This workable system ended on January 1, 1970, when the politicians deprived all hospital physicians of the right to see private patients in consultation, all were given 50 hours a week working schedules, job security was lessened, and promotion based on political appointments rather than competence and training came into being. Private practitioners are being 'bought out' by providing so many



posts in community-run ambulatory services that no market will be left for private initiative. In short, the medical profession in Sweden is soon likely to become a 'captive population.' As a result a number of the best young physicians are going to the United States."

## Finland

Helsinki is a beautiful city located on the Gulf of Finland just a few minutes' flight across from Leningrad. This juxtaposition with Russia has led the Finns into forty-four wars with Russia, frequently at the expense of losing territory as well as lives. They still feel the harsh breath of the Russian bear constantly on their tender skins. Otherwise, the Finns are a happier people than the Swedes. They are predominantly Lutheran. They have a proud heritage in Olympic competition; witness their bronze statue of Paavo Nurmi, their olympiad great. He won the gold medal in 1914 for the 1500 meter race; in 1924, the 5000 meter; and in 1920, 1924 and 1928, the 10,000 meter race. Over twelve of her compatriots in other events have won gold medals in the Olympic games since 1920. Their fine Olympic Stadium is an expression of their love of sports. Their cultural pride shows in the startling new Finlandia Culture Center and their astonishing stainless steel organ pipe memorial to Jan Sibelius. Their language is most difficult for foreigners and their use of the alphabet demoralizing to English speaking people.

Interestingly enough, their origins are not that of Vikings but they came across northern Europe from Hungary and are Magyars in origin. Hence, their characteristics are more middle European than Scandanavian. They are more relaxed than the Swedes and not as sophisticated as the Danes.

Finland has a population of 4,700,000 with a population density of only 39 per square mile as opposed to our population of over 200,000,000 with a density of 57.4 per square mile.

During the past ten years Finland has made rapid strides in Social Welfare and Health Insurance. All inhabitants are covered by

health insurance. Sixty per cent of the doctor's fee is covered by the government. Specialty fees are 50% greater. The patient pays for specialist fees and is reimbursed 75% by the government. Fifty per cent of all prescription cost is government paid. Travel by ambulance is covered by the state. There is a sickness allowance after the first week for all wage earners related to the wage, varying from \$2.50 to \$9.00 a day. Dentistry in Finland, as in Sweden, is not covered.

There is a national board of health which controls policy for the entire country, which is divided into twenty-one districts. There are centrally controlled and operated hospitals for mental health and tuberculosis sanatoria. District hospitals are owned and operated by cities and counties. The patient pays 10% of his hospitalization, the government pays the rest.

Physicians are paid monthly under the government system but may have private practice outside of the system. The patient pays seventy-five cents a visit out of his own pocket at the state operated clinics.

Maternal and child and school coverage is provided as well. Ninety-nine per cent of all deliveries occur in hospitals. At age seven all children come under the school medical program.

There is one doctor for every 890 people in Finland, the same ratio as we have in Virginia. There are 400 medical graduates each year from Finnish medical schools. There are 70,000 hospital beds, or about 15 beds for about 1,000 people as compared with 40,000 in Virginia, or about 8 beds for 1,000 people.

The average income of a physician in Finland is about \$1,300 a month, or \$15,000 annually. He works only about 37 hours per week.

In addition to the twenty-one district hospitals, there are three university hospitals where physicians are educated. There are five private hospitals in Helsinki at which the patient pays ten per cent, the state fifty per cent and the community forty per cent. The aver-

age cost per day is \$30.00. The average length of stay is fourteen days.

Finland has no nursing shortage and they have three times as many applicants to their nursing schools as there are places.<sup>2</sup> Nurses have even gone on strike. After airline hostess, nursing is the most popular occupation for young women. There are 26 nursing schools and in 1968 they graduated 2,092 nurses. The basic salary of a nurse is about \$228 per month, the ward nurse \$252, and that of director of nursing \$300 per month. After a year's work the annual leave is one month; after ten years this is increased to six weeks. A pension is paid at the age of 58 to 63, depending on the position of the employee after a minimum of 30 years service. This amounts to 66% of the average salary.

So, we may summarize the health situation in Finland as more relaxed, containing more elbow room for private enterprise but nonetheless more comprehensive in coverage than in our own country.

### Denmark

Denmark is a small country with a population of 5,000,000, or a density of 29.5 per square mile. It is the most European of all the Scandinavian countries and is, in many respects, the most cosmopolitan. "Denmark has public assistance health insurance, disability and old age pensions, workman's compensation and unemployment insurance. If a worker refuses to take an offered job, aid ceases."<sup>3</sup> (World Almanac 1972)

It is comprised of a multitude of small islands with Copenhagen as its capital. There are 8,000 doctors and 4,000 junior doctors and 700 medical specialists. Of 1,500 entering their medical schools each year, forty per cent fail and sixty per cent eventually become doctors. Four years are spent in premedical and clinical training and six more years to qualify as a specialist or a general practitioner.

Since 1930 license to practice has been granted by the National Health Service and a specialist committee has the final power over licensure of all of the thirty-two specialists.

There are no specialty boards, but the chiefs of the services in the University Hospital determine who is qualified in each specialty. So, political influence is very important in Danish medicine.

The Danish Medical Association is one hundred years old. The three branches: General Practice, Specialties, and Junior Doctors in Training each have their own union. Ninety-eight per cent of all doctors are members of the D.M.A. There are seventeen regional branches of this organization. There has been a mixed system of public and private medicine for over 200 years. Up until 80 years ago the poor were not adequately cared for, but now 98% of the population is covered, 80% of which are deemed poor and 20% rich and a certain proportion of the medical cost is borne by the system, depending on the economic level of the citizen.

Each doctor in the 17 districts has a panel of about 2,000 to 3,000 patients for which he is paid the equivalent of \$9.00 per capita. This averages per doctor about \$17,000 basic salary. The average total salary is about \$45,000 a year with \$15,000 for expenses so that he has \$30,000 net, but he is taxed for 50% of this.

The same practice areas have been present for about fifty years and a new doctor replaces a retiring practitioner by buying his practice at the rate of one and one-half to twice the annual income of his panel.

A patient can change from one doctor to another only once a year, except in most unusual circumstances.

General practitioners are not permitted to practice in hospitals but full records are returned with the patient to his primary physician on his discharge from the hospital.

There are a total of 26,800 public hospital beds, 7,000 mental hospital beds, and 1,200 private hospital beds, or a total of 35,000 hospital beds in the country or 7.4 beds per 1,000 people. There has been no change in number of beds or ratio for 25 years. All hospital based doctors are employed through the D.M.A. and the individual hospital. Their salaries range



from \$20,000 to \$50,000 and private practice is allowed. They work a 40 hour week and have a six weeks vacation each year.

Junior doctors work 56 hours a week and are paid from \$6,000 to \$15,000 annually depending on the length of service from one to fifteen years.

Hospitals are owned by the counties or cities. Ten per cent of the doctors are women.

There is a limited amount of private supplementary insurance.

In the eighteenth century the king of Denmark decreed that a hospital be built in each region. The patient pays one or two dollars daily for his hospital care, the rest is paid by the state. All citizens must be in the health system. Seventy-five per cent is paid by the central government, twenty per cent by the locality and five percent by the individual if he is able.

By 1973 the public system takes over the whole expense. Class A citizens pay the same premium regardless of income. Class B citizens of higher income pay a higher premium. For Class A citizen there is a fixed fee which the government pays directly. For Class B citizens the doctor sets the fee and collects it. Class A patients give the doctor a better annual income than Class B, although he receives \$7.00 a month for Class A patients and \$10.00 for Class B. For Class C, or totally indigent, the doctor is paid \$7.00 per month.

There is a very interesting formula for the payment of the physician. He is paid so much on his list per year which has the effect of causing him to do less work, that is half the capitation amount, but the other half is paid on the basis of services rendered, which causes him to work harder. The family doctor designates the direction and choice of a specialty whereas in Sweden the patient chooses where he wants to go for special treatment. Half of the family practitioners practice alone but half are in groups and the group practice is growing.

In 1968 an old age pension act was passed.<sup>4</sup> This provides home help, telephone, visiting

doctors, nurses and podiatrist services. From plans provided by the Danish government, non-profit societies built heated flats for pensioners renting for \$15 to \$18 a month. All have nursing units. The intent was to achieve a gradual transition from home to service flats and eventually to nursing homes. The latter are being built adjacent to hospitals. Rehabilitation or remotivation clinics are being established to improve the outlook as well as the health of their senior citizens. All citizens at 67 are eligible for these benefits.

Those who suffered in Nazi concentration camps are given a special invalid pension as statistics have shown they are more prone to heart attacks and other degenerative disease.

"Pensioners Travel", an independent agency, makes available, for those over 65, travel to other countries. Cheap railroad and bus fares are offered during weekdays by selling reduced "65" tickets.

The Danes, it would seem to me, have the most stable, controlled welfare health system of the three countries visited and their doctors seem to have more freedom within the system. There are checks against over utilization by the patient and over commercialization by the doctor. The welfare state will never be ideal, but Denmark seems to have the least objectionable (from an American point of view) of the prevailing systems in the Medical Smorgasbord.

It is hoped that this brief review will awaken us as physicians and hopefully other citizens to the deadening quality that the welfare system brings into the life of every nation it touches. Perhaps it is still not too late for us to learn from the mistakes of other civilized countries that the welfare state is ultimately counter-productive and stultifying to life, liberty and the pursuit of happiness.

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(Continued on page 49)

# Hirschsprung's Disease in the Newborn

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**It is urgent that the diagnosis of Hirschsprung's disease be made before the infant develops the dangerous enterocolitis which compromises his chance for surgical cure.**

**H**ARALD HIRSCHSPRUNG<sup>1</sup> in 1886 described two infants with the disease which now bears his name. By 1904 he had seen a total of ten cases, half of whom had died of complications of their disease before their first birthday. Although Hirschsprung called attention to the manifestations of the disease in the young infant, the usual textbook picture illustrating aganglionic megacolon came to be that of an older child with a huge abdomen. Identification of the pathophysiology of Hirschsprung's disease by several groups in the late 1940's<sup>2,3</sup> allowed Swenson and Bill<sup>4</sup> to devise a rational operation which resulted in cure and it is therefore rare now to encounter an untreated case of Hirschsprung's disease in an older child. In the infant, however, and in the neonate especially, the diagnosis may be difficult to make. The high mortality rate in the untreated patient in the first year of life is directly related to failure of diagnosis. In this

\* From the Pediatric Surgical Division of the Department of Surgery, University of Virginia Medical Center.

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report of twelve patients under fourteen months of age treated for Hirschsprung's disease at the University of Virginia Hospital during the past one and a half years, we would like to point out some of the protean manifestations of Hirschsprung's disease in the newborn along with techniques of diagnosis and treatment. Our purpose is to impart a sense of urgency in making the diagnosis in this condition which is by no means rare and which if untreated may carry a mortality rate of 40-50% in the first year of life.

Table I describes the primary clinical problem presented by each of the infants in this group of twelve on referral to our hospital.

TABLE I PRESENTING SYMPTOMS (PRIMARY REASON FOR REFERRAL)		
Complaint	Number	Ages
Constipation requiring frequent laxatives or enemas.....	5	4 mos., 6 mos., 8 mos., 13 mos., 1 mo.
Obstruction.....	3*	36 hrs., 6 wks., 1 mo.
Enterocolitis.....	3*	3 days, 5 wks., 5 wks.
Perforation of colon...	1	1 day

\*One death in each group.

Although all infants manifested symptoms of varying severity soon after birth, the ages at which they were referred are scattered over a relatively wide range. Failure to make an early diagnosis resulted in considerable morbidity within this group, three of the infants arriving in a moribund state. The diversity of presentation and management is well illustrated by the following four case reports.

W. H. was the product of a normal labor



and delivery with a birth weight of 7 lbs. He was noted to have a distended abdomen and failure to pass stool during the first day of life, but after two enemas he passed meconium and began having normal stools. He was discharged from the newborn nursery on the seventh day of life and did well for the ensuing three weeks, having two to three stools per day. At three and one-half weeks of age he developed abdominal distention and vomiting, following which he was admitted to his community hospital profoundly dehydrated and acidotic. The next day he began having loose brown watery stools. After four days he was transferred to the University of Virginia Hospital for further evaluation. A barium enema performed shortly after admission was interpreted as "acute ulcerative colitis". Despite vigorous attempts at rehydration, transfusions of whole blood, and high doses of antibiotics, the child deteriorated rapidly and expired. The autopsy diagnosis was "ulcerative colitis". Subsequent review of sections of the rectum revealed absence of ganglion cells in the myenteric plexus while ganglion cells were present in normal numbers in the ulcerated proximal colon. The pathologic diagnosis was therefore corrected to read "aganglionic megacolon with acute colitis". That this child's clinical course might have been favorably altered by early diagnosis and appropriate treatment is suggested by the course of the following patient.

T. W., a premature infant with a birth weight of 4 lbs. 5 oz., was found to have sluggish bowel activity immediately after birth with frequent suppositories and enemas required to produce normal stool activity. The child did fairly well until four weeks of age at which time he began having fever, abdominal distention, vomiting, and profuse watery diarrhea. He was admitted to his community hospital where he was treated with intravenous

fluids and antibiotics. The watery diarrhea continued. A barium enema revealed a narrow segment of distal colon with marked dilatation of the colon proximal to this. Barium was present in the colon on the flat film taken twenty-four hours after this study. Forty-eight hours after the barium enema the child was transferred to the University of Virginia Hospital showing signs of marasmus with dehydration, shock, anemia, and dramatic abdominal distention (Fig. 1). An abdominal film showed retention of barium in a dilated left



Fig. 1. T.W. Shortly after admission to the University of Virginia Medical Center.

colon (Fig. 2). In the Newborn Special Care Unit a rectal tube was inserted and multiple irrigations of normal saline carried out with the recovery of copious quantities of foul-smelling fecal material. Following decompression of the colon a transverse colostomy was performed under general anesthesia. A sterile peritonitis was found at the time of colostomy.



The child did well following surgery and within five days developed a normal infantile stool pattern. He was discharged three weeks



Fig. 2. T.W. Abdominal film taken 48 hours after barium enema, showing retention of barium in the left colon.

later (Fig. 3) and re-admitted at nine months of age for definitive surgery.

R. B. was the product of a normal labor and delivery, a little girl having a birth weight of 6 lbs. 8 oz. She regurgitated her first oral feedings and no stools were passed spontaneously on the first day of life. On the second day of life the child passed meconium following a rectal examination. By the third day she was having normal meconium stools. At two months of age she was admitted to her community hospital because of abdominal distention and vomiting associated with obstipation of five days duration. Abdominal films showed

low colonic obstruction. The obstruction was relieved following several enemas. One month later she was again admitted to her community



Fig. 3. T.W. Three weeks post-colostomy.

hospital with obstipation, vomiting and abdominal distention of five days duration. A barium enema revealed a constricted colonic segment with retention of barium after twenty-four hours. She was admitted to the University of Virginia Hospital two weeks later at which time her general condition was excellent and a sigmoid colostomy was done just above the zone of aganglionic colon (Fig. 4). In the ensuing months she gained weight normally and returned at eleven months of age for definitive surgery.

K. M. was a 4½ lb. infant male born two months prematurely who developed abdominal distention in the first day of life without passage of any stools. Abdominal films at Washington Children's Hospital revealed a pneumoperitoneum and at exploration a perforation of the transverse colon just beyond the hepatic flexure was found. A colostomy was performed at the hepatic flexure following which the infant did well. Rectal biopsy performed at the University of Virginia at one year of age



showed absence of ganglion cells. At the definitive operation performed at age fourteen months the aganglionic segment was found to extend from the anus to the hepatic flexure.



Figure 4. R.B. Showing end sigmoid colostomy immediately post-operatively.

## Discussion

Identification of the infant with Hirschsprung's disease requires a high index of suspicion, followed by the proper sequence of diagnostic maneuvers. An otherwise normally active, usually full-term infant, who fails to pass stools in the first twenty-four hours following birth and whose abdomen becomes distended and who may require manual assistance for stool evacuation, must be looked at with suspicion. This early picture of low colonic obstruction may be rapidly overshadowed by the developing enterocolitis which may occur as early as forty-eight hours after birth when constipation is replaced by a dramatic diarrhea. Some infants will continue to manifest signs of severe obstruction with massive abdominal distention and bilious or fecal vomiting. However, most infants with Hirschsprung's disease following mechanical assistance and evacua-

tion with rectal dilatation will do so well that their physicians will be content to send them home with a diagnosis of anal stenosis or meconium plug. Many of these infants will do reasonably well at home with the assistance of rectal dilatation, suppositories or enemas until they develop overwhelming enterocolitis at age three or four weeks or colonic obstruction once again requiring a physician's attention. With further delay in recognition, the mortality rises.

The distended newborn infant with an abnormal stool pattern requires a proper work-up for Hirschsprung's disease before discharge home. He should have upright (or lateral decubitus), flat and lateral abdominal films prior to attempts to relieve the distention with nasogastric tubes, rectal dilatations, or enemas. Such preliminary studies may immediately suggest that a form of intestinal obstruction other than Hirschsprung's disease exists. The examining physician may note that the anus and rectal canal of the infant with Hirschsprung's disease may feel tight and narrow over an unusually long distance—a finding that may be misinterpreted as anal or rectal stenosis. Digital examination or rectal irrigation may be followed by the passage of a long tenacious mucoid meconium stool, the so-called meconium plug described by Clatworthy.<sup>5</sup> Such an infant should not be discharged with the diagnosis of meconium plug syndrome without ruling out Hirschsprung's disease. Following relief of the rectal plug, if there is one, a barium enema should be performed. A barium enema properly performed by a radiologist familiar with the subtleties of the radiographic appearance of Hirschsprung's disease in the infant is essential. The major diagnostic features—barium passing from a narrow distal aganglionic segment to a proximal dilated segment through a funnel-shaped transitional zone—may be difficult to identify using techniques conventionally applied to older patients. Normal infants, including those with the meconium plug syndrome who have been relieved of their plug will expel their colonic barium within twenty-four hours after the study. In-



infants with Hirschsprung's disease will retain barium in their colon over twenty-four hours and sometimes as long as a week after the study. This retention may occur in spite of passage of normal or even diarrheal stools. Thus the proper barium enema study of a newborn must include abdominal films taken twenty-four and forty-eight hours after the initial examination. (It is obviously important that the infant not be given enemas or rectal dilatations during this period.) Radiographic evidence of free intraperitoneal air or of gas within the *wall* of the bowel in the preliminary abdominal films are obvious contraindications to barium enema examination. If the radiologic evidence clearly supports the clinical diagnosis of Hirschsprung's disease, a colostomy should be performed at a site just proximal to the transitional zone which will usually be in the sigmoid or distal descending colon. A biopsy of the narrow distal sigmoid or rectosigmoid can be taken at the same time for for tissue confirmation of the diagnosis. In cases where the clinical and radiological evidence is equivocal a rectal biopsy should be performed and if rectal aganglionosis is confirmed a colostomy should then be carried out.

Infants with enterocolitis must be treated aggressively, aiming therapy at colonic distention, shock and sepsis. Normal blood pressure and good urine output should be restored by appropriate intravenous fluid therapy including plasma and/or blood. Although no specific pathogens have been implicated in Hirschsprung's enterocolitis, broad spectrum antibiotic treatment with penicillin and gentamycin will cover organisms seeded through the devitalized colonic mucosa. Most important is the passage of a large multifenestrated rectal tube through the narrow aganglionic rectosigmoid into the dilated proximal colon. Gentle lavage with a warm physiologic electrolyte solution is repeated until colonic decompression has been achieved. When the infant's condition has been improved to where he is out of shock, is putting out satisfactory amounts of urine, has been reasonably well decompressed, is no longer in respiratory distress

secondary to his abdominal distention, a colostomy should be carried out. A quick transverse loop colostomy should be performed in this situation and in the critically ill infant may be carried out under local anesthesia. For many infants with Hirschsprung's disease who develop enterocolitis these measures, even when carried out properly and vigorously, will have come too late. Those infants who recover following colostomy will usually thrive and develop normally. If properly performed, the colostomy itself should be easy to care for, and usually does not require any sort of appliance. The child is returned for definitive surgery between nine and twelve months of age, depending on his general growth and development.

Table II shows the definitive operations thus far carried out in this group of twelve patients,

TABLE II  
OPERATIVE PROCEDURES CARRIED OUT

Colostomy followed by Duhamel.....	4
Colostomy followed by Swensen.....	1
Colostomy followed by Soave.....	1
Colostomy alone*.....	2
Swensen alone.....	1
Short segment myomectomy alone.....	2
No operation†.....	1

\*One patient expired following colostomy and one is awaiting a definitive procedure.  
†Diagnosis made at postmortem examination.

eight of whom had had a prior diverting colostomy. Included are two infants with "short segment" Hirschsprung's disease, the aganglionic segment extending for only a few centimeters proximal to the anus. Recent enthusiastic reports<sup>6,7</sup> encouraged us to simply take a long strip out of the posterior aspect of the internal sphincter muscle, a rectal myomectomy. The result in one child was excellent, in the other good. The definitive operation we currently prefer for the more typical patient with Hirschsprung's disease is the Martin modification<sup>8</sup> of the Duhamel end-to-side operation, utilizing the GIA stapler for construction of the anastomosis as described by Steichen, Talbert and Ravitch.<sup>9</sup>

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## Nutritional Anemia in an Inner-City Community

Nutritional anemia—the major deficiency disease of childhood—may reappear in early adolescence. A survey of iron deficiency anemia in an inner-city community published in the November 6th issue of the *Journal of the American Medical Association* reports that 13.5 per cent of the teenage girls studied were anemic.

Although the usual peak age for anemia is the second year of life, the study conducted in New Haven, Conn., reported an increase in cases of anemia in children 10 to 14 years of age, and a significant increase in girls aged 14 to 21, whose bodies are not sufficiently well-nourished to cope with the added stress of menstruation.

The incidence of anemia among black girls was higher than that for white or Spanish-speaking girls—21 per cent in the 14 to 21 age group. This rate is higher than that for teenage girls in an all-black community in Gainesville, Florida, reported in an earlier study.

Of the 1,789 children and young adults studied, 12.5 per cent of the one to three year olds, 4.4 per cent of those three to ten years of age, 2.4 per cent of the 10 to 14 year olds, and 1.2 per cent of the boys who were 14 to 21 years old had iron deficiency anemia.

The gradual disappearance of anemia after the third year is attributed to a decreased growth rate and the assumption of a more varied diet later in childhood. This "marginal correction" is not sufficient for girls at the beginning of puberty, however, and the anemia reappears.

The authors suggest that there is need for continuing concern regarding the nutritional status of children and young adults in lower socioeconomic communities.

Authors are Drs. Richard Katzman, Alvin Novack, and Howard Pearson, from the Hill Health Center and Yale University School of Medicine, New Haven.



# Evaluation of Vagotomy and Antrectomy for Duodenal Ulcer Disease

Also a Review of a 10 Years Experience with Vagotomy and Antrectomy in 104 Patients

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**Some duodenal ulcers cannot be controlled by even the best medical management and these usually become candidates for surgery. Several procedures have been used. These are presented and the advantages of vagotomy with antrectomy (subtotal gastrectomy—anterior gastrojejunostomy) are discussed.**

**T**HE TYPE OF GASTRIC SURGERY for chronic duodenal ulcer has been a favorite topic for controversial discussion since gastrectomy was first performed by Billroth in 1883. The arguments have centered around several main issues. 1. When, short of perforation or massive bleeding, should surgery be advised for the duodenal ulcer patient? 2. Which surgical procedure is best; that is the most physiological with fewest immediate postoperative problems and with the best long term benefits or absence of dumping, marginal ulcers, or small stomach syndromes?

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## Physiology of Peptic Ulceration

The basis of all surgical procedures for duodenal ulcer is to rid the stomach of excess acid. Primarily, peptic ulcer is caused by the proteolytic action of pepsin on gastrointestinal mucosa when exposed to gastric juice. To affect proteolytic activity, pepsin requires a strongly acid pH of 3.5 or less. Vagotomy was shown by Dragstedt<sup>1</sup> to markedly reduce gastric acid production experimentally. In his animal pouch experiments he unequivocally proved the overnight reduction of gastric acid and this procedure was adapted to humans in 1943.<sup>2</sup> Patients with chronic ulcer disease usually have increased acid production—much in excess of the average 20 ml. equivalents of HCL over a 12 hour fasting period. The vagotomy procedure not only reduces acid production but also stomach tone resulting in a very slow gastric emptying and therefore making mandatory an outlet or drainage procedure whenever vagotomy is performed.

The pyloric antrum or distal 20% of the stomach contains mucosa without chief or parietal cells and a thickened muscular wall for propulsive emptying. This portion of the stomach produces the hormone gastrin which mediates the gastric phase of secretion. The Heidenhian pouch experiments<sup>3</sup> demonstrated that in dogs with antrum resected and vagally denervated, there is a dramatic reduction of acid production in the stomach. Following this experiment Gregory and Tracy<sup>4</sup> identified

the polypeptide hormone gastrin and were successful in its synthesis. Continued investigation further revealed that gastrin released by the pyloric antrum was regulated by pH and that as hydrochloric acid concentration increased, the gastrin released is inhibited.<sup>5</sup> Since the duodenal ulcer patient secretes almost four times as much gastric juice in the fasting stomach as does the normal individual, it is logical that vagotomy plus antrectomy seems designed as a sound physiological procedure for the duodenal ulcer patient. The need to resect antrum and not perform a simple pyloroplasty plus vagotomy seems important to us for there seems to be a potent synergistic relationship between various phases of gastric secretion. For example, a substantial number of recurrent peptic ulcers are gastric in location even after vagotomy. These seem always related to excessive gastrin formation and emphasized the need for antrum resection to avoid this complication.

The old dictum, "No acid, no ulcer" is valid and has therefore been seized upon by surgeons to devise that surgical procedure which 1. reduces acid, 2. bypasses the ulcer, and 3. prevents recurrence and malnutrition. Four operations designed to perform these functions are currently used for the treatment of duodenal ulcer. 1. Subtotal gastrectomy, 2. Vagotomy and pyloroplasty, 3. Vagotomy and gastrojejunostomy. 4. Vagotomy plus antrectomy.

### Procedures

I. Subtotal Gastrectomy: This was first introduced by Billroth for cancer of the stomach in 1883, but was rapidly adapted by European surgeons and later by American surgeons for the treatment of duodenal ulcer. Although this is a safe operation by modern standards with a less than 2% mortality rate, the complication of small stomach syndromes with weight loss and malnutrition, dumping, and marginal ulceration have made the procedure less than acceptable.<sup>6</sup>

II. Vagotomy Plus Pyloroplasty: Vagotomy and pyloroplasty has become increas-

ingly popular during the past ten years. Since the procedure is safe and rather rapidly performed this is important in the hands of less experienced surgeons—especially at the resident level. The vagotomy plus pyloroplasty has the advantage of avoiding reflux of alkaline duodenal juice into the stomach and thereby does not produce increased gastrin production. The pyloroplasty also provides direct visualization of bleeding duodenal ulcers and transfexion sutures can be utilized to control bleeding when this has occurred. Pyloroplasty avoids the afferent loop syndromes and dumping problems sometimes present with subtotal gastrectomy. Woodward reports a low mortality (1.8%) with this procedure as well as satisfactory long term results. He does state that where much inflammatory reaction is present around the duodenum an effective pyloroplasty is technically impossible or difficult.<sup>7</sup> Our own feeling is that many chronic duodenal ulcer patients have marked cicatrix or inflammatory reaction in the duodenal pyloric channel area. Pyloroplasty by any method, either Finney or Heineke-Mikulicz and even with a one layer suture closure to avoid narrowing often fails to provide good drainage. Also, although we do not emphasize resection of the duodenal ulcer, we do feel that bypass of the gastric contents is strongly indicated. However, we have utilized the vagotomy and pyloroplasty in critically ill or debilitated patients where rapidity of surgery is indicated and where less stress is vital to survival and feel that this procedure still is often indicated in this type of patient.

III. Vagotomy Plus Gastrojejunostomy: Vagotomy plus gastrojejunostomy is theoretically a good procedure, but has the following disadvantages. 1. It is difficult to achieve complete division of the vagus nerves. Even truncal vagotomy of the lower esophageal level requires good exposure and experienced surgeons. 2. The gastroenterostomy must be placed in the most dependent portion of the vagotomized stomach or poor emptying and gastric distension occurs. 3. Regurgitation of alkaline duodenal contents through the gas-



trojejunostomy and into the stomach may stimulate an excessive flow of gastrin hormone. These patients may later develop gastric or marginal ulcers.

IV. Vagotomy, Antrectomy (subtotal gastrectomy—anterior gastrojejunostomy): Our own experience with chronic duodenal ulcer patients has led us to believe that antrectomy plus vagotomy and bypass of the duodenum with an open (polya) anteriorly located gastrojejunostomy is the safest, most physiological procedure.

We have attempted to examine our preference for this procedure on 104 patients with average follow-up of 3.5 years. Follow-up has been based on office visits on a regular basis. Herrington<sup>8</sup> reviewed the Vanderbilt experience with truncal vagotomy, antrectomy and Billroth I (gastro-duodenostomy). Their experience is impressive and the overall results in terms of immediate morbidity and mortality and lack of recurrent ulceration is also good. Apparently with difficult duodenal ulcers, i.e., deep postbulbar penetrating ulcers and those significantly near the ampulla, the ulcer itself is left in place. We too leave the ulcer in situ in many instances, but believe that diverting the “gastric stream” is important to assure eventual ulcer healing, prevent healing cicatrix and obstruction, relieve pain where present and avoid future rebleeding episodes. The review and follow-up of our small group of patients seems to agree with Jordan and Condon<sup>9</sup> that vagotomy and antrectomy is superior to vagotomy and drainage as the operation of choice for elective treatment of duodenal ulcer.

Clinical Material

During the period of July 1958 to July 1968 a total of 218 patients were seen in consultation for evaluation of surgical treatment for duodenal ulcer. Many of these patients had been cared for medically for a considerable period of time with recurrent symptoms, bleeding, or evidence of cicatrix and obstruction despite adequate management. (Table 1). Of the total seen, 148 patients were selected

as operative candidates and of this group it was felt that overall best results in our experience would be obtained by vagotomy, antrectomy, and anterior polya Billroth II type of anastomosis in 104. The remaining 36 patients will

TABLE 1.

INDICATIONS FOR OPERATION

1. Repeat Bleeding Episodes.....	37%
two or more—23 patients—all patients bleeding actively at hospital admission at which operation was performed.	
three or more—17 patients. Ten bleeding actively at hospital admission at which operation performed. Seven bleeding recurrently on multiple previous hospital admissions or as outpatients.	
2. Intractability of Symptoms.....	33%
(34 patients)	
Pain—21 patients.	
Recurrent ulceration despite prolonged medical management—13 patients.	
3. Symptoms of Chronicity.....	30%
(30 patients)	
History of perforation with later symptoms—6.	
Actual perforation at operation—2.	
Obstruction from chronic duodenal scarring, partial—18, complete—4.	

not be presented here, but had various procedures ranging from pyloroplasty and vagotomy to simple 60% subtotal gastrectomy. (Table 2) Most of these patients were op-

TABLE 2.

OPERATIONS OTHER THAN ANTRECTOMY AND VAGOTOMY  
IN 36 PATIENTS

Subtotal (50%) gastrectomy (without vagotomy) .....	17 patients
Pyloroplasty and Vagotomy.....	15 patients
Duodenostomy and simple suture ligature of bleeding ulcer in critically ill and elderly patients .....	4 patients

erated upon in the early stages of this study before an effort to standardize a procedure had been made. Table 3 indicates age and sex distribution and duration of symptoms prior to operation in the 104 patients undergoing vagotomy, antrectomy, and polya Billroth II anastomosis.

Postoperative Care

Routinely the Intensive Care Unit is utilized. We have learned to leave gastric suction in



situ for three or four days and not bother "testing" for residual—this avoids too early removal of tubes with resultant gastric distension, ileus, and respiratory embarrassment

TABLE 3.

104 PATIENTS WITH RESECTION

1. Age—average .....	37.5 years
2. Sex—male .....	69
female .....	35
3. Duration of Symptoms	
Six months to 1 year .....	11%
One year to 3 years .....	24%
Three years to 5 years .....	27%
Over 5 years .....	38%

from elevated diaphragms. We clamp gastric suction on the third day and remove same the fourth day if no vomiting or discomfort has developed. Clear liquids are started as soon as the gastric tube is out, followed by a six feeding pureed bland diet. The average length of hospital stay is eight days with nylon skin sutures removed in two weeks at the time of office follow-up.

Operative Mortality

Of the 104 patients undergoing vagotomy, antrectomy, and Billroth II anastomosis, two deaths (2.8%) occurred postoperatively (within six weeks of operation). Two of the deaths were sudden and apparently cardiac in nature. One death resulted from duodenal blowout on the eighth postoperative day.

TABLE 4.

RECURRENCE RATE

Recurrence of Symptoms	
1. Postoperative indigestion—six .....	5.7%
2. Recurrent ulcer (marginal ulcer)	
(Two of these patients were shown later to have Zollinger-Ellison Syndrome)—three .....	2.8%
3. Repeat bleeding from duodenal ulcer not resected .....	0.0%

Complications

Our follow-up has been rewarding and approaches 90%. We have been impressed by the lack of dumping in this group. Despite a wide-open polya anastomosis, we have not seen a single severe dumping syndrome and only four with symptoms approaching postprandial discomfort (weakness, diaphoresis, palpita-

tions). Weight loss has been no problem and no patient in this group (unlike subtotal gastrectomies) lost weight on an involuntary basis.

There were 12 subcutaneous wound infections, four incisional herniae, and one pancreatic pseudocyst (in a patient operated upon in 1960 when a persistent and perhaps unwise attempt was made to "resect" a penetrating postbulbar duodenal ulcer).

Comments

One hundred and four patients with chronic duodenal ulcers, repeat bleeding episodes, obstructive symptoms or perforation were operated upon in the period from July 1958 to July 1968—a 3.5 year average follow-up was

TABLE 5.

NUMBER OF PATIENTS OPERATED UPON BY THE RECOMMENDED PROCEDURE (TOTAL 104)

Year	No. of Patients
1958	4
1959	8
1960	7
	(9 others operated upon by another procedure)
1961	8
	(9 others by another procedure)
1962	9
	(10 others by another procedure)
1963	10
	(7 others by another procedure)
1964	12
	(one other by another procedure)
1965	9
1966	12
1967	11
1968	14

obtained. We felt that the most physiological operation in our experience consisted of truncal vagotomy, antrectomy, and Billroth II polya anterior anastomosis procedure and have performed this operation with standard regularity. We did not perform acid secretory analysis (Hollander test or Kay's augmented histamine test) routinely since the results of these studies for pre- and postvagotomy patients were well documented. The recurrence

rate of less than 2% and the low mortality and morbidity figures indicate to us that we are safely satisfying the need and preventing unwanted ulcer recurrence. We resected seven perforated ulcers in this group with very early diagnosis of perforation and enough duodenal pathology (i.e., inflammation and chronicity) to indicate that simple closure and plication would be complicated by later obstruction or medical failure. This group has done well with operation and other series have also indicated that emergency resection for perforated duodenal ulcer is of proven value.<sup>10</sup> However, we have not routinely resected acute perforations; these tend to be located in the anterior duodenum, to be relatively asymptomatic, and to respond well to medical management if closed and plicated. For first offenders with a short history and an acute perforation we therefore prefer to close rather than to resect, leaving treatment to our medical colleagues until or unless failure there requires surgical intervention.

### Summary

1. One hundred and four patients undergoing subtotal gastrectomy, anterior Billroth II polya anastomosis and truncal vagotomy are reported, extending over a ten year period.

2. This selection of patients for operation was drawn from 218 patients evaluated for chronic duodenal ulcer disease.

3. The most common indications for operation in decreasing percentage were repeat bleeding episodes on two or more occasions—37%. Intractability of symptoms consisting of persistent indigestion and pain—33%. Symptoms of chronicity associated with duodenal cicatrix, perforation with sealing or frank perforation—30%.

4. Our overall operative mortality consisted of three deaths (2.8%) and a recurrent ulcer occurred in 2.8% (two of these patients developed Zollinger-Ellison syndrome).

5. We believe that our series represents a rather broad spectrum of candidates selected from the population at large and operated upon in a community hospital. The Billroth II procedure with vagotomy is a safe and standardized technique, but we emphasize the lack of necessity in resecting difficult duodenal ulcers because of the complications that can ensue. We do emphasize the need to be elastic in one's selection of the surgical procedure since it appears that vagotomy plus pyloroplasty has a definite place in duodenal ulcer therapy especially in old, debilitated patients where rapid open identification of the bleeder and suture ligature is mandatory.

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# Propoxyphene

## Two Fatalities Due to Overdose

**Propoxyphene, the most widely prescribed analgesic, is not as safe a drug as generally believed. Two deaths from overdosage are reported.**

**I**N THE FIELD OF LEGAL MEDICINE, the medical examiner is not satisfied to find a victim with a needle and a syringe by his side. Even when empty vials of medications are found around the deceased, the responsibility of the medical examiner is to investigate further by necropsy and toxicological means for a final cause of death. At times there are no external clues but only intuition. This and investigation often enable us to find the probable cause of death.

Recently in our area, we were made aware of two deaths due to an overdose, and over-indulgence of Propoxyphene. I know of at least one other case in an adjoining county in another state, but this is not being reported.

I had known both these patients in private life. One of them was the first patient when I opened my practice. I recall that he requested specifically a prescription of Darvon Compound-65 for alleged severe back pain. Two hours later, the same individual called me for a second prescription. He claimed to have lost the first. An inquiry to a local pharmacist made me aware of "Drug Habituation" in this individual.

This sixty year old man had been a patient at the Southwestern State Hospital in Marion, Virginia. He was unemployed, an alcoholic, heavy smoker, and an habitual patient in several hospitals. The only diagnosis established for this man was inadequate personality and with no apparent physical disability.

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One day he was found dead by a member of his family soon after he had been seen earlier in a fair state of health. There was no evidence of foul play, and no evidence of suicide. This death would appear to be due to natural causes, mainly cardiovascular. Post-mortem examination was essentially negative. Toxicological studies revealed: 0.05% alcohol by weight; negative for barbiturates; 1.25 mg% Darvon; 9.2 mg% salicylates.

The second case refers to a female patient, a childless registered nurse, who had been seen by many physicians. No definite diagnosis had been given, but it was known to her family that she abused drugs by taking many self-prescribed drugs, including Propoxyphene. On one occasion she was found locked in her home, confused, disoriented, and crawling around her room. The husband reached her by forceful entry into the home. Because of this incident, the husband had forbidden her the continued use of these abused drugs.

A few days before her death, she had been ill, tired, listless, and unkempt. On the evening of her death, she was eating and talking. Suddenly she collapsed on the table and died.

Post-mortem examination failed to reveal abnormalities, but toxicological studies revealed: negative for alcohol; 1.4 mg% propoxyphene; liver 15.8 mg% propoxyphene.

Propoxyphene is an odorless, crystalline powder with bitter taste. It is freely soluble in water. It is a good analgesic in the potency range of codeine. When this drug is used in combination (aspirin, caffeine, phenacetin, etc.), its effects are enhanced.

An effective pharmacological dose has been found to be from 32-65 mlg. The smallest dose having been found to cause death in a human being is 800 mlg (plus alcohol). Addi-

tion of drugs and/or alcohol increases drug toxicity. The largest dose ingested without having caused death is 6500 mg.

Doses causing death have varied. There are few side effects caused by this drug, including: vertigo, light-headedness, drowsiness, gastric irritation, nausea, vomiting, excitation, headache. Larger doses (dangerous range) will produce all of the above plus: somnolence, delirium, mild respiratory depression, miosis. Excessive doses will cause: severe convulsions, respiratory depression, apnea with anoxia, and death due to cerebral anoxia and cardiac arrest.

When Propoxyphene is ingested, it will be degraded to nor-propoxyphene by liver enzymes. 80% of the drug will be excreted in the urine. The remaining is excreted in the lung, bile, and feces. The half life of Propoxyphene in blood has been variable from patient to patient. It is usually less than five hours. The half life of Nor-propoxyphene Hydrochloride is more than five hours.

The chief metabolites of the main drug have much less respiratory and central nervous system depressant activity than the main drug. Heroic clinical procedures to speed excretion will not improve excretion of the drug.

Because of the wide distribution of the drug, and with the belief that an analgesic obtained by prescription is stronger than common analgesics, and because this drug can be prescribed without narcotic control, instances of abuse, habituation, and physical and psychological dependence are encountered.

Incidentally, numerous studies have revealed that Darvon-32 is not more effective than aspirin or a placebo, and Darvon Compound 65, even though it is more effective than aspirin, is not more effective than 32 mg of codeine or 50 mg of demerol as claimed by the manufacturer.

In unknown cases of Darvon overdoses, it is recommended to remove the drug by gastric lavage, diuresis, and dialysis. The airway should be free. Respiration should be assisted and when respiratory failure is present Nalline Hydrochloride and/or Lorfan (Narcotic Antagonists) should be given.

Nalline 5-10 mg i.v.—repeated at intervals of 15 to 30 minutes until response is obtained.

Lorfan is to be given. Give one mg per 100 mg of Propoxyphene ingested (when the amount is known), or one mg i.v. to be given every two or three minutes when the dose is unknown.

Stimulants and anticonvulsants are not indicated but can be given with extreme caution.

The following quotations were received from Mr. Fred Salter, Pharmacology Instructor at the Medical College of Virginia.

- (1) Most widely prescribed analgesic.
- (2) Few side effects.
- (3) No narcotic control.
- (4) Physician's best friend.
- (5) Top money maker of all prescription drugs.

### Summary

- (1) Two fatalities are reported due to overdose of Propoxyphene. (Darvon)
- (2) General information about the drug.
- (3) Physicians should be aware of the toxic effects of this drug and its possible abuse, since it is not an innocuous chemical.

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## **Influenza Status Report**

Influenza occurs every year in the United States, but its incidence and geographic distribution vary widely. Periodically, influenza appears in epidemic form. This is the result of antigenic variation in the prevalent influenza viruses and the relative susceptibility of the population. Both type A and type B influenza viruses undergo these antigen changes which usually develop slowly but may be rapid and abrupt. Type A influenza viruses are more frequently associated with epidemics and produce more serious clinical disease than type B viruses.

### **Present World-Wide Influenza Situation**

From September 1971 through January 1972 influenza similar to prototype strain A/HongKong/8/68 was reported in Eastern Europe with relatively slow spread to the Soviet Union, Germany, France, and England. In February 1972 the World Influenza Centre in London reported that one of the strains isolated in this epidemic (A/England/42/72) presented significant antigenic differences from A/HongKong/1/68. Closely related strains have been isolated in southern India, Korea, Malaysia, Singapore, and Australia. Additional outbreaks of influenza-like illness have occurred in Guam, Saipan, Vietnam, Thailand, and the Fiji Islands.

Influenza activity in the United States has been limited to three isolates from Americans living in Hawaii (September 1972). One of these isolates resembled A/England/42/72. United States naval vessels operating in the Western Pacific have also reported outbreaks of influenza activity while at sea.<sup>1</sup>

The Public Health Service Advisory Committee on Immunization Practices has recently

announced that intensified surveillance is needed to determine how far the newer strains have spread. It is reasonable to expect that they will be the cause of additional influenza cases in the United States during the 1972-73 season. We cannot predict, however, whether widespread outbreaks are likely to occur. Part of this uncertainty is because a majority of our population already has some immunity from prior exposure to related influenza viruses.<sup>2</sup>

### **Current Vaccine Composition**

The inactivated bivalent influenza vaccine presently available for 1972-1973 differs in two respects from that available in 1971-1972. First, the potency of the type A strain component has been increased from 400 to 700 chick cell agglutinating (CCA) units. Second, a more current type B strain replaces that used in the 1971-1972 formulation. Each adult dose of the 1972-1973 vaccine now contains a total of 700 CCA units type A (A/Aichi/2/68) and 300 CCA units type B (B/Massachusetts/1/71).

Vaccines from all commercial producers are highly purified and should have fewer associated adverse reactions than previous influenza vaccines. Preparations incorporating /A England/42/72 or related strains are being worked on in the laboratory. Distribution is not expected before 1973.

### **Vaccine Dosage Schedule**

The primary series consists of 2 doses given subcutaneously at 6-8 week intervals. The dosage volume for adults and a detailed schedule for children are specified in each manufacturer's labeling. Persons who have had one



or more doses of influenza vaccine since 1968-69 need only a single subcutaneous booster dose. Influenza vaccine is ordinarily contraindicated in patients hypersensitive to egg protein.

### Recommendations for Usage of Influenza Vaccine

Annual vaccination is recommended for persons of all ages with the following chronic debilitating conditions:

- A. *Heart Disease*—congenital, rheumatic (especially mitral stenosis), arteriosclerotic and hypertensive (particularly with cardiac insufficiency);
- B. *Bronchopulmonary Disease* — Asthma, chronic bronchitis, cystic fibrosis, bronchiectasis, emphysema, and advanced tuberculosis;
- C. *Metabolic Disorders*—especially diabetes mellitus.

The value of routine immunization of all older age persons is far from certain. Immunization of the elderly is usually justified on the basis of their having incipient or potentially chronic diseases listed above.

Routine immunization of industrial workers is not recommended and should be discouraged. Under special circumstances the immunization of persons who provide essential community services (e.g., medical staff, policemen, firemen, etc.) may be indicated. Before immunizing even these special groups, the responsible physicians should take the following constraints into account:

- A. The effectiveness of inactivated influenza vaccines has been variable and the protection conferred relatively brief;
- B. Influenza epidemics are difficult to predict on a national basis, let alone in Virginia;
- C. All influenza vaccines produce side-

effects which mimic influenza and result in absenteeism in their own right;

- D. The effectiveness of the 1972-73 vaccine against the newer variants is not known; and
- E. The 1972-73 vaccine is in short supply. Promiscuous use will divert vaccine from patients with chronic debilitating disease who are at increased risk of being hospitalized or dying from influenza.<sup>3</sup>

### Influenza Surveillance

The Bureau of Epidemiology has set up a sentinel surveillance system in ten urban areas which will report weekly on influenza. The system depends heavily upon detecting increases in hospital admissions, emergency room visits, school absenteeism, and industrial absenteeism. When increased activity is observed, the local health department will obtain throat washings and blood specimens from representative patients to document the presence of influenza in the community.

Private practitioners, hospital-based physicians, and other health agencies are invited to participate in the surveillance system on a voluntary basis. The director of the local health department should be notified immediately concerning influenza-like illness in patients who have returned from overseas in the past week or of outbreaks in the community. The local health director can make arrangements with the Bureau of Epidemiology and the State Laboratory to collect whatever viral specimens are indicated.

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3. "Influenza Vaccine." Ibid, 21:207, 1972.

# Medicare—Part B . . . .

Frequently Medicare B is asked why some payments are reduced by the implementation of a new calendar year physician's profile. In recent years costs have increased yet Medicare, in some few instances, is allowing less under the 1971 physician's profile than it did under the 1970 profile. While the individual physician's customary charge is based on the actual charges submitted for a specific service the prevailing charge is established by comparison of similarly skilled physicians in a broad geographic area for the particular service. Regulations require Medicare to compare the customary charge with the prevailing and if when compared a difference is found to exist, to consider the lesser amount for payment.

Charging levels do vary within the same geographic area between members of the same specialty group. Not all internists charge the same amount for a routine office visit nor do all radiologists charge identical amounts for the same radiological procedure. The number of times the service is performed by individual physicians also has its effect on causing either escalation or reduction of the prevailing charge level.

Prevailing is the 75th percentile of the service. The 1500th service falls within the 800 whose customary charge was \$12.00 and the prevailing is \$12.00.

CURTIS J. KELLY, JD

An example of how the prevailing can be reduced is illustrated below:

1970 Charge Data reflects for a routine office visit

Number of times service performed by physicians having same customary charge	Customary Charge
800 services . . . . .	\$12.00
700 services . . . . .	\$10.00
500 services . . . . .	\$ 7.00
<hr/>	
2,000 services total	

1971 Charge Data reflects for routine office visit

Number of times service performed by physicians having same customary charge	Customary Charge
450 services . . . . .	\$12.00
850 services . . . . .	\$10.00
700 services . . . . .	\$ 7.00
<hr/>	
2,000 services total	

Prevailing is the 75th percentile or the 1500th service. The 1500th service falls within the 850 whose customary charge was \$10.00 and the prevailing becomes \$10.00.

Based on the example, those physicians who were receiving \$12.00 for the routine office visit under the 1970 profile, would receive not more than \$10.00 based on the 1971 profile. The charge made by the physicians combined with the number of times the procedure was performed changed from one year to another resulting in the decrease in the amount Medicare could allow.



# Woman's Auxiliary . . . .

*President*.....MRS. WILLIAM J. REARDON  
*President-Elect*...MRS. DONALD F. FLETCHER, JR.  
*1st Vice-President*.....MRS. WILLIAM GORDGE  
*2nd Vice-President*.....MRS. WALLACE BAKER  
*3rd Vice-President*...MRS. M. PINSON NEAL, JR.  
*Corresponding Secretary*..MRS. HANS KLAPPROTH  
*Recording Secretary*.....MRS. RICHARD CLARK  
*Treasurer*.....MRS. HAROLD WILLIAMS  
*Directors*.....MRS. DAVID B. HILL  
                              MRS. REUBEN F. SIMMS  
                              MRS. JOSEPH M. STRAUGHAN

## Acceptance Speech

In accepting the office of President, Kay Reardon made the following comments:

As I stand here I must confess to feeling like a pebble on the beach that is moved by each wave as it sweeps over it. One wave is that of joy and happiness to be the representative of such a wonderful group; another wave is that of unworthiness, and yet another is that of being close to panic. Another wave—the feeling of thankfulness for giving me the privilege of serving with Becky Hill. She has been both an inspiration to me and a friend. I do pledge to you that I will do each task to the best of my ability and pray that with the help of you Auxiliary members, Virginia's star will continue to shine.

I would like to share this moment with several people without whose physical as well as moral support I could not be here today. May I introduce the Doctor whose wife I am very proud to be, Bill; my daughter, Kathy and my mother, Mrs. Walsh.

Like those who have preceded me, both the Board and I dedicate ourselves to serving you. We want to make your jobs both easier and more effective but also more rewarding. We are proud of the work done by you. Each year the flag of Virginia flies higher at the National Convention. Each community is a better place because you, either as an individual Auxiliary member or as a group, have made it so. I am just a figurehead, it is you that make the State organization. With each

year that passes, we should be more aware that we cannot sit on the sidelines. We must be committed to our husbands and his needs and those of his profession. If we have this commitment, then we must involve ourselves. True involvement is an extension of oneself. We need your help, your involvement in getting good medical legislation, educating the communities in improved health care, inspiring those interested in medical careers, raising funds to aid our medical schools and to make more student loans available. There is some phase of Auxiliary work for everyone. Whether you do a large or small job, each of you is needed. Whether you work within your Auxiliary or as an individual Auxiliary member in other organizations in your community, your involvement shows you do care. What better public relations could there be for the medical profession? The well-being of your community is dependent on each individual's responsibility. Each area has its own needs. You must decide what projects need your support. Your state chairmen and I can give you an outline but you must fill in the details. Call on us—let us help if we can.

We all must feel a sense of commitment. If we have this, how can we remain inactive and uninvolved?

BE COMMITTED—BE INVOLVED  
YOU'LL LIKE IT.

## Minutes of Fiftieth Annual Meeting

*Place*—The Conference Center, Williamsburg, Virginia

*Time and Date*—9 a.m., November 6, 1972

Mrs. David B. Hill, President, called the meeting to order and welcomed all members, delegates and honored guests.

Mrs. Daniel Anderson, Chaplain, read a very moving and beautiful prayer.

Mrs. Hill then led the members and delegates in the Pledge of Loyalty.

Mrs. Malcolm Harris from "the Convention City" of Williamsburg extended warm greetings.

Mrs. James Wilson, President of the Hampton Auxiliary, welcomed everyone to Williamsburg on behalf of the Convention Committee.

Mrs. Charles Smith, McLean, responded and gave a very delightful and humorous talk about the past fifty years.

Mrs. Hill introduced the honored guests:

Mrs. Robert F. Beckley, President, Woman's Auxiliary to the American Medical Association

Mrs. Hazel Lewis, Assistant Executive Secretary, Woman's Auxiliary to the American Medical Association

Mrs. Linus Hewit, Chairman, Health Education Committee, Woman's Auxiliary to the American Medical Association

Mrs. Daniel Anderson, Member, Board of Directors, Woman's Auxiliary to the American Medical Association

Mrs. Nash Thompson, President-Elect, Woman's Auxiliary to the Southern Medical Association

Mrs. J. M. Jarratt, West Virginia, Eastern Regional Chairman, Health Manpower Committee, Woman's Auxiliary to the American Medical Association

Mrs. Bruce Martin, Past-President, West Virginia Auxiliary

Mrs. Robert Janes, President, West Virginia Auxiliary

Mrs. T. Sear, President, North Carolina Auxiliary

Mrs. DeWitt Des Lourdes, President, Maryland Auxiliary

Dr. Carl Stark, President-Elect, The Medical Society of Virginia

Mrs. Hill paid tribute to Mrs. Southgate Leigh as the organizer of the first Virginia Auxiliary fifty years ago—1922.

Mrs. Hill then recognized Mrs. Herbert W. Rogers, Norfolk, Past-President of the Woman's Auxiliary to The Medical Society of Virginia in 1942-43. Mrs. Hill then asked all past-presidents to stand and be recognized.

Dr. Carl Stark brought a timely message of "The Changing Image of the Physician" and pledged full cooperation of the Medical Society in the next year.

Mrs. Robert Beckley gave the Keynote Address. She, also, extended congratulations to the Auxiliary from the national auxiliary.

Mrs. George Kelly reported the minutes had been read and approved by the Reading Committee.

Mrs. James Moss reported the books in good order.

Mrs. Randolph Hoge, Recording Secretary,

called the roll with the following results. Officers—16; Committee Chairmen—19; County Auxiliaries—21 responded reporting a total 112 delegates.

Mrs. Hill commended the State Officers for their work during the past year and thanked them for a "job-well-done".

Mrs. Hill announced that through the enthusiastic leadership of Mrs. Reardon, the Virginia Auxiliary had won two awards at the National convention in San Francisco for achievements in AMA-ERF. The State had again doubled its contributions to AMA-ERF over the preceding year reaching an amount in excess of \$20,000 and also reaching a goal of \$10.00 per capita membership. Virginia received a third award for the greatest increase in state membership.

Mrs. Robert Keeling, Chairman, read the report of the Finance Committee explaining the recommendations of the committee which are included in the budget. Mrs. Keeling made the recommendation that the budget be adopted with the amendments made at the Pre-Convention Board Meeting:

- (1) Travel to National Conferences \$600.00;
- (2) Convention Delegates attending National Convention \$600.00.

Mrs. Hans Klapproth made the motion the budget be accepted as presented. Seconded and carried.

Mrs. Michael Puzak made an amendment to the motion that the funds for the Virginia Council on Health and Medical Care be \$100.00. Amendment seconded and carried.

The Secretary, Mrs. Hoge, read the recommendation from the Board that Mr. Howard, Executive Secretary, The Medical Society of Virginia, be recognized for his outstanding services to and his interests in the Woman's Auxiliary and, that he be made an Honorary Member of the Auxiliary. Mrs. Cooke made the motion that the recommendation be approved and implemented. Seconded and carried. Mrs. Hill instructed Mrs. Klapproth to provide a suitable certificate of Honorary Membership to be presented to Mr. Howard during the annual luncheon.

Mrs. Hill recognized and praised Mrs. Strong for her work as Newsletter Editor.

Mrs. Richard Clark, Chairman, reported a total registration of 144. 112 delegates had registered.

Mrs. Broaddus Gravatt, Historian, spoke most enthusiastically about the publication of "The First Fifty Years—The Woman's Auxiliary to The Medical Society of Virginia". Four hundred copies have been printed. Cost of book—



\$2.00 per copy. She encouraged members to purchase them and to encourage the sale of the books in each local auxiliary.

Mrs. Donald Fletcher reported for the delegates to Annual Woman's Auxiliary-American Medical Association Convention and displayed a bulletin board which she had prepared with information received at the national meeting in San Francisco.

Mrs. Joseph Romnes presented the following Resolutions:

WHEREAS, the Woman's Auxiliary to The Medical Society of Virginia on this Fiftieth Annual Convention now assembled at The Williamsburg Lodge, Williamsburg, on this 6th day of November 1972 has been a most successful meeting, both informative and enjoyable,

WHEREAS, the success of any convention depends on leadership, co-operation and efforts of many people,

THEREFORE be it resolved that this convention go on record as expressing sincere appreciation to its success—especially to:

Mrs. David B. Hill, President  
Mrs. Robert Stout, Convention Chairman  
Mrs. Grey Hughes, Convention Co-chairman  
Mrs. James Wilson, President, Hampton Auxiliary

Mrs. William Harris, President, Newport News Auxiliary

Mrs. Robert Beckley, President, Woman's Auxiliary to the American Medical Association

Mrs. Hazel Lewis, Assistant Executive Secretary, Woman's Auxiliary to the A.M.A.

Dr. William Hotchkiss, President, The Medical Society of Virginia

Dr. Carl Stark, President-Elect, The Medical Society of Virginia

Mr. Robert Howard, Executive Secretary, The Medical Society of Virginia

Miss E. Spencer Watkins, Managing Editor, Virginia Medical Monthly

Mrs. Linus W. Hewit, National Chairman, Health Education

Mrs. Raymond Brown and The Association of Virginia Antiquities for arranging the tour of Belroi and tea at Toddsbury, the home of Mrs. Charles Beatty Moore.

RESOLVED that a copy of these and/or an appropriate letter of thanks be mailed to each party herein mentioned.

Mrs. Stout made announcements regarding the Champagne Reception and Luncheon.

The Alexandria Auxiliary has books on Drug

Abuse at the registration desk for anyone wishing a copy—no charge.

The Mid-Centennial History—"The First Fifty Years—The Woman's Auxiliary to The Medical Society of Virginia" are on sale at registration desk.

Mrs. Reardon announced that copies of lists of new Officers and Committee Chairmen were available.

Fairfax Auxiliary extended invitation to all members and guests to a tea honoring Mrs. Reardon to be held at 4 p.m.

Mrs. Daniel Anderson, Chaplain, conducted a most impressive service in memory of our deceased members.

Mrs. W. H. Barney, President, Lynchburg Auxiliary, made the motion that Mrs. David B. Hill be presented to the National Nominating Committee. Seconded and carried.

Mrs. Reuben Simms, Chairman, Nominating Committee presented the following slate of nominees for office 1972-73:

President—Mrs. William J. Reardon  
President-Elect—Mrs. Donald F. Fletcher, Jr.  
1st Vice President—Mrs. William Gordge  
2nd Vice President—Mrs. Wallace Baker  
3rd Vice President—Mrs. M. Pinson Neal, Jr.  
Corresponding Secretary—Mrs. Hans Klapproth  
Recording Secretary—Mrs. Richard Clark  
Treasurer—Mrs. Harold Williams  
Directors—Mrs. David B. Hill  
Mrs. Reuben Simms  
Mrs. Joseph Straughan

Mrs. Gravatt made the motion that the slate of officers be accepted as presented. Seconded and carried.

Mrs. Santiago Nunez, Richmond Auxiliary, extended a cordial invitation to all to attend the 1972 Annual Antiques Show and Sale to be held at Hotel Jefferson in Richmond. Dates: March 7-10.

Mrs. Robert Janes expressed her deep appreciation for having been invited to attend this 50th Annual Convention.

Mrs. Hill declared the convention recessed to be reconvened at luncheon.

Mrs. Hill reconvened the convention at 1 p.m.

*Invocation*—Mrs. Daniel Anderson, Chaplain

*Presentations*—Mrs. Hill presented a certificate of appreciation for his services and assistance to the State Auxiliary to Mr. Robert Howard, Executive Secretary to The Medical Society of Virginia, stating this made him an Honorary Member of the auxiliary. Mr. Howard responded with a few remarks and stated "this could only happen in America!"

Mrs. Hill recognized and paid tribute to all Past-Presidents of the Auxiliary. Fourteen Past-Presidents stood to be recognized. Mrs. Hill announced the history of the auxiliary—"The First Fifty Years—The Woman's Auxiliary to The Medical Society of Virginia" was dedicated to a Past-President, Mrs. Kalford Wall Howard.

Mrs. Hill recognized the honored guests.

Mrs. Hill introduced Dr. William Drucker, Dean, University of Virginia School of Medicine who spoke briefly and thanked the auxiliary for funds received during the past year. He gave a short talk on how the University plans to use the funds.

Mrs. Joseph Passantino, Fashion Show—Fashions which were current during the formative years of the auxiliary and during the year each auxiliary was organized were presented.

Mrs. George Kelly, Chairman, Awards Committee, presided. She announced the two awards presented to the Virginia Auxiliary in San Francisco for AMA-ERF: (1) largest increase of funds raised over preceding year. (2) achieving the National Goal of \$10.00 per capita.

*State Awards: A.M.A.-E.R.F.*—Fairfax County—Silver Tray and certificate; Norfolk—greatest increase over last year; Arlington—Achieving \$10.00 per capita goal; Northern Neck—Achieving \$10.00 per capita goal.

*Doctor's Day Awards*—Auxiliary under 50 members—Wise County; Auxiliary over 50 members—Lynchburg County.

*Health Manpower*—Hampton Auxiliary

Special Awards of Merit—Richmond Auxiliary, Roanoke Auxiliary.

*Community Services*—Silver Tray—Arlington

Special Merit Awards—Virginia Beach, Roanoke, Portsmouth.

*Scrapbook Awards*—Auxiliary under 75 members—1st place—Rockingham; 2nd place—Hampton.

Auxiliary over 75 members—1st place—Arlington; 2nd place—Richmond.

*Installation of Officers*—Mrs. Robert Beckley installed the new officers.

Mrs. Reardon responded with her acceptance speech.

Mrs. David Hill presented Mrs. Reardon with the President's pin.

Mrs. Reuben Simms presented Mrs. Hill with the Past-President's pin.

Mrs. Barney, Lynchburg Auxiliary, presented Mrs. Hill with a gift from the Lynchburg Auxiliary members.

Mrs. Stout, Convention Chairman, extended her thanks and appreciation to all the Convention Committee members for their outstanding job in planning the convention.

MRS. RANDOLPH H. HOGE

*Recording Secretary*

## Life of Crime More Likely for Children of Criminals

Children of criminal mothers are much more likely to become criminals themselves, according to an Iowa study reported in the November issue of the *Archives of General Psychiatry*, a publication of the American Medical Association.

This finding holds true even when the children are removed from their parents at very young ages and adopted into non-criminal families.

The mothers consisted of a group of 41 white offenders who had given up babies for adoption. Most of the mothers were inmates of the Women's Reformatory, Rockwell City, Iowa, during the years 1925 to 1956. The 52 babies of these mothers were compared to a control group of 52 infants born to non-

criminal mothers and given up for adoption during the same years.

Most of the offspring of criminal mothers were separated at one year of age or younger, and none beyond the age of three years.

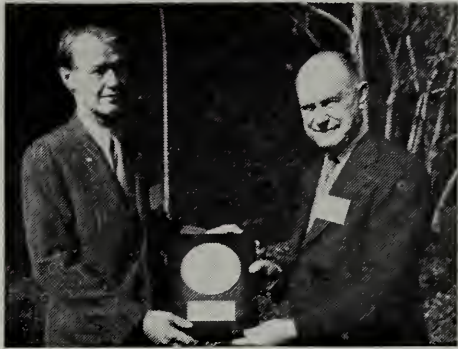
The study showed that eight of the children of criminal mothers have arrest records, while only two of the control group have records. Seven of the first group have been convicted of an offense, compared to one control. Four of the children of imprisoned mothers have records of two or more arrests, compared to none of the controls. Five of the first group have been incarcerated.

Author of the study is Raymond R. Crowe, M.D., of the Department of Psychiatry, University of Iowa College of Medicine, Iowa City.



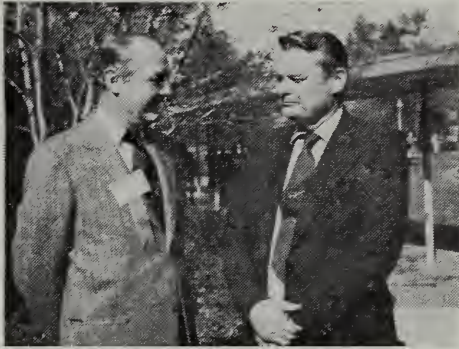
# The Medical Society of Virginia . . . .

## "SEENS" AT THE ANNUAL MEETING IN WILLIAMSBURG



"ON THE BALL FOR COMMUNITY SERVICE"

Dr. William S. Hotchkiss, President, congratulates Dr. W. Linwood Ball (right) as recipient of this year's Community Service Award.



YOUR AMA - "ON THE JOB"

(Left to Right) Dr. Richard E. Palmer, Alexandria, and Dr. Max H. Parrott, Portland, Oregon. Members of the Board of Trustees of the American Medical Association.



MADAME PRESIDENT!

(Left to Right) Mrs. William J. Reardon, President-Elect of Woman's Auxiliary to The Medical Society of Virginia. Mrs. David B. Hill, President. Mrs. Robert F. Beckley, President of the Woman's Auxiliary to the American Medical Association.



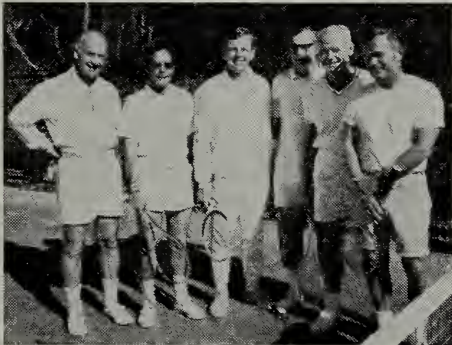
BEAUTIFUL MEMORIES

From the Woman's Auxiliary 50th Anniversary Fashion Show.



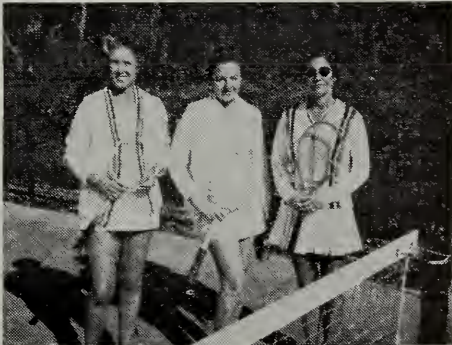
FOUR FOR FORE

(Left to Right) Dr. Andrew F. Scheele, Dr. James B. Kegley, Jr., Dr. Mann T. Lowry, and Dr. Elmer S. Robertson.



"WHAT A RACQUET"

(Left to Right) Drs. Sieber, Crowder, Nirschl, Godwin, Fitzgerald and Hutt.



CENTER COURT

(Left to Right) Mesdames Sieber, Cohen and Crowder.



## Council

A meeting of the Council of The Medical Society of Virginia was held in Room C of the Williamsburg Conference Center on Sunday, November 5.

*Members Present:* Dr. William S. Hotchkiss, Dr. Carl E. Stark, Dr. James M. Moss, Dr. W. Leonard Weyl, Dr. Mack I. Shanholtz, Dr. Harry J. Warthen, Dr. Thomas S. Edwards, Dr. Raymond S. Brown, Dr. Arthur A. Kirk, Dr. Carlington Williams, Jr., Dr. George J. Carroll, Dr. Baxter H. Byerly, Dr. John A. Martin, Dr. James C. Respass, Dr. Alvin E. Conner, Dr. James H. Smith and Dr. Thomas L. Lucas.

*Others Present:* Dr. Anthony J. Munoz, Second Vice-President; Dr. Gerald J. Fisher, Third Vice-President; Dr. William J. Hagood, Jr., Vice-Speaker; Dr. W. Callier Salley, Dr. Alexander McCausland and Dr. William R. Hill, AMA Delegates; Dr. William Grossmann, Dr. F. Ashton Carmines and Dr. Michael A. Puzak, AMA Alternate Delegates; Dr. Max H. Parrott (Portland, Ore.), Member—AMA Board of Trustees; Dr. Richard E. Palmer, Past-President of MSVa and Member of AMA Board of Trustees; Dr. Darrell C. Crain, President, Medical Society of District of Columbia; Dr. DeWitt E. DeLawter, President, Medical & Chirurgical Faculty of Maryland; Dr. Worthy W. McKinney, President, West Virginia State Medical Association; Dr. Eugene R. Perez, Director, Virginia Regional Medical Program; and Mr. William R. Miller, Attorney.

### Joint Screening Panel

Dr. George Nipe, Chairman of the Liaison Committee to the Virginia State Bar, reported on a recent meeting with representatives of the Bar. The meeting had been called at the recommendation of Council in an effort to resolve problems connected with the Joint Medico-Legal Screening Panel.

It was learned that an agreement had been reached whereby certain portions of the Joint Screening Plan would be amended in such manner as to preclude the filing of suits by plaintiffs' attorneys when Panel decisions are "negative".

It was also learned that the entire Plan is now under study and that an effort will be made to correct all apparent weaknesses.

*A motion by Dr. Moss to approve the proposed amendments to the Joint Screening Plan was seconded and adopted.*

## Financial Report and Budget

Dr. Michael Puzak, Chairman of the Finance Committee, discussed the Society's financial position and presented a proposed budget for fiscal 1972-73. He stated that the Society occupies a sound and enviable financial position and lived well within its income during the past twelve months.

After amending that part of the budget having to do with the Annual Meeting in such manner as to more realistically reflect the total cost, *the budget was approved.*

### Southside Virginia Medical Society

Dr. Carroll reported the Fourth District Medical Society, in an effort to eliminate any confusion, has requested that it be permitted to change its name to "Southside Virginia Medical Society". There are other component societies within the Fourth Congressional District and, consequently, the name "Fourth District Medical Society" has sometimes been misleading.

*A motion by Dr. Carroll to grant the request was seconded and adopted.*

### F.D.A. Telegram

It was recalled that The Medical Society of Virginia had recently dispatched a telegram to the Food and Drug Administration supporting the AMA position on certain rule changes as noted in the Federal Register. A question had arisen concerning the propriety of sending such a telegram without prior consultation with Council or other appropriate body.

It was brought out that matters of a similar nature come up from time to time and it is not always possible to call a meeting of Council or the Executive Committee. Consequently, it is sometimes necessary that decisions be made based on an understanding of Society policy and the advice of officers and other knowledgeable members. It was agreed, however, that members of Council should be contacted—by telephone if necessary—on all matters of importance and that the Executive Committee should similarly be contacted whenever feasible. Dr. Stark assured Council that such guidelines would be followed just as closely as possible in the future.

*A motion by Dr. Moss to reaffirm the Society's action in the case of the F.D.A. telegram was seconded and adopted.*

### Blue Shield and Northern Virginia

Council learned that considerable interest has been expressed in having that part of Northern



Virginia, presently served by the Blue Shield Plan of Washington, returned to the jurisdiction of Blue Shield of Virginia. Dr. Hotchkiss stated that Blue Shield of Virginia had agreed to abide by the Society's recommendations on participation in HMO's and that everything possible should be done to help strengthen the overall Blue Shield movement. He went on to say that it is most important for the Society to learn the thinking of Northern Virginia physicians and make sure that, in the final analysis, their interests are protected.

During the ensuing discussion, it was stated that physicians in Northern Virginia are tied rather closely to the D.C. Plan and that it would be difficult to abandon a program in which they are so personally involved.

It was then moved by Dr. Weyl that the matter be referred to an appropriate committee which would study the various ramifications of the matter and report its findings to Council at a later date. *The motion was seconded and carried.*

### **Nominating Committee**

When Council last met on September 13, it recommended that the Nominating Committee be retained and encouraged the nomination of more than one candidate for each office. It also recommended that the Committee report nominations for all offices and other vacancies. Dr. Hotchkiss discussed the intent of this particular decision and raised a question as to whether nominations for AMA Delegates and Alternates should be reported by the Committee. It was agreed that this could pose something of a problem and *a motion by Dr. Stark recommending that AMA Delegates and Alternates be elected as in the past was seconded and carried.*

### **Replacement Blood Therapy**

Council next turned its attention to a request from the Medical Executive Committee of a Richmond hospital that the Society do what it can to clarify the problem of replacement blood therapy and assist in establishing a legal basis for blood administration. The request stemmed from reluctance of anesthesiologists to administer anesthesia to members of certain religious groups who do not believe in transfusions, etc.

Everyone agreed that this is a real problem and Mr. Miller stated that there has been considerable litigation on the subject. The Courts have generally upheld the right of the individual.

It was then moved by Dr. Weyl that the matter be referred to Mr. Miller for further study

with the suggestion that he contact the AMA Legal Department for any material on the subject it has compiled over the years. *The motion was seconded and adopted.*

### **Richmond Academy of Medicine**

Growth and development problems now facing the Medical College of Virginia and Confederate Museum have also involved the Richmond Academy of Medicine and a possible solution has been suggested. The "solution" is said to contain definite advantages to all three organizations.

Dr. Williams discussed the proposed solution and its feasibility. By making the present Richmond Academy of Medicine headquarters available to the Confederate Museum, The Medical College of Virginia could in turn obtain property now owned by the Museum. The College is reported to need this particular piece of property if its future plans for development are to be realized. By using those funds obtained through the sale of its building, the Richmond Academy of Medicine would relocate in a less congested area of the City. Considerable interest has been expressed in having the Academy construct an addition to the headquarters building of The Medical Society of Virginia and thereby develop an administrative center for organized medicine in Richmond's West End. The addition would contain an auditorium, conference facilities and additional office space.

Dr. Williams made it clear that no formal proposal has yet been made but that all parties concerned are anxious to determine whether there is any interest on the part of The Medical Society of Virginia. Should such interest exist, a further and more serious study could be set in motion. It was learned that the architect responsible for the headquarters building of The Medical Society of Virginia believes that an addition could be constructed without difficulty and that zoning would pose no problem.

It was then moved by Dr. Moss that an ad hoc committee be appointed to conduct a detailed study of the proposal and make its findings and recommendations known at a future meeting of Council. The motion was seconded. After further discussion concerning disposition of the Joseph Miller Library—housed in the headquarters of the Richmond Academy of Medicine—*the motion was adopted.*

Dr. Stark then introduced a follow-up motion requesting the ad hoc committee to consider the various ramifications of expansion as they pertain to the entire State. *The motion was seconded and carried.*

## Legislation

Dr. John F. Nowell, representing the Virginia Society of Ophthalmology and Otolaryngology, expressed concern over loopholes in Virginia law which might permit the use of drugs by others than physicians should the word "*mechanical*" be omitted. Consequently, a number of amendments—designed to protect the public from this possibility—have been proposed to the State Drug Control Act, Medical Practice Act and that portion of the Code regulating the practice of optometry.

It was brought out that the Legislative Committee had considered the proposals during its September meeting but had decided to take no action in view of an Opinion by the Attorney General that only those professions specifically designated in the Code could prescribe drugs.

After further discussion, it was moved by Dr. Moss that Council approve the proposals presented by Dr. Nowell and refer them to the Legislative Committee for implementation. The motion also carried a suggestion that a representative of the Virginia Society of Ophthalmology and Otolaryngology attend the next meeting of the Committee. *The motion was seconded and adopted.*

## Competitive Bidding

Council learned that the Virginia Association of Professions plans to sponsor legislation in the next Session of the General Assembly which would prohibit the awarding of certain professional contracts by Local and State governmental agencies on the basis of competitive bidding. The legislation would provide that such awards must be made on the basis of competence. Efforts are being made at the National level to force some professions to amend their principles of ethics in order to make competitive bidding possible. It is hoped that the legislation planned by V.A.P. will forestall such a possibility at the State level.

It was then moved by Dr. Moss that the proposed legislation be supported. *The motion was seconded and carried.*

## Committees

Dr. Stark then discussed several matters involving Committees of the Society. These were presented principally for the information of Council in order that it could be kept current on all developments.

Dr. Stark indicated that he was seriously considering the establishment of a "Speaker's Bureau" in conjunction with the Committee on

Legislation. Such a Bureau could be extremely helpful when Society spokesmen are required for committees of the General Assembly.

He went on to say that the Committee on Air Pollution would likely be dissolved in view of a recommendation from the Committee Chairman and that an Environmental and Occupational Health Committee would be appointed in its stead.

A recommendation had also been made that the Committee Handling Medicare Complaints from Physicians and Component Societies be dissolved. There seems to be a very limited need for its services at the present time.

Dr. Stark also plans to change the name of the Committee Studying the Future Mission of the Society. He believes it more appropriate to call it an Advisory Committee of Past-Presidents to the Council.

## VaMPAC

Members of the VaMPAC Board of Directors are elected annually by Council and a list of nominees was presented. A motion by Dr. Weyl calling for the election of the slate as presented was seconded.

Dr. Moss called Council's attention to the fact that the slate contained six members from the Fifth District and that several of the nominees had served over five years—contrary to VaMPAC By-Laws. He also expressed concern over the fact that not all members of the Board had attended meetings regularly. He then moved to amend Dr. Weyl's motion in such manner that the slate of nominees would be elected only until the next meeting of Council. A new slate would be considered at that time. The amendment was seconded.

There followed considerable discussion during which it was brought out that re-Districting has caused some problems in obtaining a more equitable representation on the Board. It was also learned that VaMPAC will probably amend its By-Laws to permit its members to serve ten years rather than five. It was indicated that a number of the Board members had served VaMPAC in various capacities and there was some question as to the interpretation of the By-Laws in these cases.

It was then moved to postpone the amendment indefinitely. *The motion was seconded and carried.*

Dr. Stark moved to amend the motion by requesting the VaMPAC Board to give consideration to all Districts when preparing future slates of nominees. *The amendment was seconded and adopted.*



*Dr. Weyl's original motion was then adopted as amended and the following Board of Directors was elected:*

#### *District Chairmen*

- 1st: Frank C. Robert, M.D., Hampton
- 2nd: Fred T. Given, Jr., M.D., Norfolk
- 3rd: Henry S. Spencer, M.D., Richmond
- 4th: Arthur A. Kirk, M.D., Portsmouth
- 5th: Girard V. Thompson, Sr., M.D., Chatham
- 6th: Charles A. Young, Jr., M.D., Roanoke
- 7th: Dennis P. McCarty, M.D., Front Royal
- 8th: Alvin E. Conner, M.D., Manassas
- 9th: Walter C. Elliott, M.D., Lebanon
- 10th: Michael A. Puzak, M.D., Arlington

#### *Members-at-Large*

- 1st: James R. Howerton, M.D., Hampton
- 2nd: Harry B. Taylor, Jr., M.D., Norfolk
- 4th: Robert B. Webb, Jr., M.D., Petersburg
- 5th: Mrs. F. Clyde Bedsaul, Floyd
- 5th: Baxter H. Byerly, M.D., Danville
- 5th: A. Epes Harris, Jr., M.D., Blackstone
- 5th: Thomas H. Holland (Pharmacist),  
Danville
- 5th: Mrs. Robert D. Keeling, South Hill
- 6th: Alexander McCausland, M.D., Roanoke
- 9th: Cecil C. Hatfield, M.D., Saltville
- 10th: Ira D. Godwin, M.D., Fairfax
- 10th: Joseph M. Kline, D.D.S., Arlington

#### **Conservation of Hearing**

A supplemental report, prepared by Dr. John B. Gorman, Chairman of the Committee on Conservation of Hearing, was brought to the attention of Council as a matter of information. The report brought Council up to date on the Committee's progress in publishing an information brochure and outlined its future plans with reference to changes in the State Workmen's Compensation Laws.

#### **Congressional Districts**

Dr. Weyl discussed some of the problems being encountered by component societies which overlap Congressional Districts. Because of these problems, he believes that Councilor Districts might be more practical and expressed the hope that the matter could be given very serious consideration. He then moved that the matter be referred to an appropriate committee for study and that its findings and recommendations be reported back to Council. *The motion was seconded and carried.*

#### **F.D.A. Regulations**

Dr. Hagood acquainted Council with a resolution which would be introduced in the House on proposed F.D.A. Regulations. The resolution expresses strong opposition to these changes and notes that, if allowed to stand, they might seriously affect the physician's ability to care for his patients.

#### **Blue Shield Cooperation**

Dr. Murrell briefly discussed those events leading a Resolution on Cooperation with Blue Shield of Virginia which would be introduced by him in the House. The Resolution recognizes areas of mutual concern and calls on members of the Society to cooperate with Blue Shield of Virginia in various ways—particularly as participating physicians.

There being no further business, the meeting was adjourned.

#### **House of Delegates**

##### FIRST SESSION

The House of Delegates of The Medical Society of Virginia met in the Virginia Room of the Williamsburg Conference Center on Sunday, November 5, 1972. The meeting was called to order at 2:00 p.m. by Dr. William S. Hotchkiss, President.

The invocation was delivered by Robert I. Howard, Executive Secretary.

Dr. Thomas S. Edwards, Speaker of the House, was introduced. A report from the Credentials Committee, presented by Dr. George M. Nipe, Chairman, indicated a quorum present.

Minutes of the October, 1971, sessions of the House were approved as published in the December, 1971, issue of the Virginia Medical Monthly.

Mrs. David B. Hill, President of the Woman's Auxiliary to The Medical Society of Virginia, was then introduced and reported on the Auxiliary's activities during the past year. It seemed fitting that the Auxiliary could point to so many achievements on the occasion of its 50th Anniversary. Mrs. Hill stated that the Auxiliary had won two National awards for its contributions to the AMA Education and Research Foundation and had almost doubled its membership quota for the year. The House was pleased to learn that Mrs. Daniel N. Anderson, Norfolk, had been elected to the Board of the Woman's Auxiliary to the American Medical Association.

Mrs. William J. Reardon, President-Elect of the Auxiliary, was also introduced.

The House then heard Dr. Max H. Parrott, Portland, Oregon, member of the AMA Board of Trustees, discuss matters of particular interest to the AMA members. He reported that although every effort was being made to economize as much as possible, no needed programs would be adversely affected.

The following distinguished guests were then introduced: Dr. Darrell C. Crain, President, Medical Society of the District of Columbia; Dr. Worthy W. McKinney, President, West Virginia State Medical Association and Dr. DeWitt E. DeLawter, President, Medical & Chirurgical Faculty of Maryland.

Representing allied organizations were Dr. Thomas P. Upshur, President, Virginia State Dental Association and Mr. Kevin P. Purdy, Virginia Chapter, American Academy of Physicians' Associates.

Dr. Hotchkiss then delivered his Presidential address, which is published in its entirety in the January issue of the Virginia Medical Monthly. Among the subjects discussed by Dr. Hotchkiss were HMO's, peer review, physicians' assistants, continuing medical education and chiropractic. It is of the utmost importance that all members of the Society read Dr. Hotchkiss's address and thereby become more knowledgeable concerning these pressing issues.

The Speaker then requested that the various Congressional Districts caucus for the purpose of electing members to serve on the Nominating and Reference Committees. He reminded Districts 2, 4, 6, 8 and 10 that nominees should be considered for Council. He also requested the 1st, 2nd and 10th Districts to submit three nominees each for the Board of Medical Examiners.

Immediately following the caucus period, the House gave its consideration to those rules of procedure which would govern the conduct of business from that point on. The rules were adopted as presented.

A financial report and proposed budget for fiscal 1972-73 were then presented by Dr. Michael A. Puzak, Chairman of the Finance Committee. He stated that the Society continues to occupy a sound and enviable financial position and is once again proposing a balanced budget. He noted, however, that increasing demands are being made upon the Society's resources and that the Finance Committee will watch developments closely during the coming year. The budget was referred to a Reference Committee for consideration the following day.

The annual report of Council to the House was then presented and referred to a Reference Committee.

The various committee reports were received and likewise referred to Reference Committees.

The Speaker next called for new business and noted that the following resolutions had been distributed prior to the meeting: Posting of Bonds in Malpractice Suits—Culpeper County Medical Society; Labeling of Prescriptions—Halifax County Medical Society; McClellan Bill—Halifax County Medical Society; Smallpox Vaccinations—Halifax County Medical Society; President's Committee for Physically Handicapped; Joint Practice Commission—Stuart Medical Society; Medical, Pharmaceutical, Hospital Committee—Halifax County Medical Society; Anti-substitution—Halifax County Medical Society; Admission Guidelines for Medicare and Medicaid—Fairfax County Medical Society and Certificate of Need—Newport News Medical Society.

Special reports of the Peer Review and Insurance Review Committees were then noted and referred to Reference Committees.

Dr. Thomas W. Murrell, Jr., introduced a resolution calling for closer coordination and more direct communication between The Medical Society of Virginia and Blue Cross-Blue Shield of Virginia.

Dr. George Broman, on behalf of the Culpeper County Medical Society, introduced a resolution on school bus safety.

A resolution having to do with Blue Shield payments for certain laboratory tests was introduced by Dr. Wallace Baker on behalf of the Alexandria Medical Society.

Contingency fees in the practice of law was the subject of a resolution sponsored by the Fairfax County Medical Society and introduced by Dr. Donald Thorn.

Dr. Harold I. Nemuth then introduced a resolution supporting the Virginia Department of Health in its battle against venereal disease.

Dr. J. B. Hutt, Jr., followed with a resolution opposing HMO's, PSRO's, etc.

A resolution which would reaffirm the Society's position of 1970 on PSRO was introduced by Dr. Baxter H. Byerly.

Dr. M. F. Durfee, on behalf of the Halifax County Medical Society, introduced a resolution expressing opposition to certain proposed rule changes by the Food and Drug Administration under the title "Legal Status of Approved Labeling for Prescription Drugs; Prescribing for Uses Unapproved by the Food and Drug Administration".

Dr. Edwards called attention to the fact that three Reference Committees would meet the following afternoon at 3:00 p.m. and the second ses-



sion of the House would be held on Thursday —also at 3:00 p.m.

After requesting the Committee on Nominations to meet with him in order that a time and place for its meeting could be arranged, Dr. Edwards declared the House adjourned.

## SECOND SESSION

The second session of the House of Delegates was called to order by the Speaker at 3:00 P.M. on Tuesday, November 7, 1972, at the Williamsburg Conference Center. Dr. George Nipe, Chairman of the Credentials Committee, reported a quorum present.

In order to clear the way for the report of the Nominating Committee, a motion was introduced to suspend the Rules and consider that portion of the Judicial Committee report having to do with the election of Vice-Councilors, Executive Vice-President, etc. *The motion was adopted and the Judicial Committee report presented by Dr. McCausland.*

Dr. McCausland then presented the report of the Nominating Committee. He stated that while the Committee was anxious to cooperate in every way possible and carry out the wishes of the House, it was doubtful that the Committee could always nominate two or more candidates for each office.

Dr. John A. Martin was nominated President-Elect and unanimously elected.

Dr. Alvin E. Conner was elected First Vice-President, Dr. Harry G. Hager, Jr.—Second Vice-President, and Dr. Duncan S. Owen, Jr.—Third Vice-President.

Robert I. Howard was named Executive Vice-President.

Following the Committee's nomination of Dr. Thomas S. Edwards for Speaker of the House, the name of Dr. William J. Hagood, Jr., was placed in nomination from the floor. Dr. Hagood was elected.

Dr. K. K. Wallace, Jr., and Dr. Kinloch Nelson were nominated for the office of Vice-Speaker and Dr. Wallace was elected.

Nominations for Council were then reported and the following elected:

- 2nd District: Dr. Charles E. Davis, Jr.
- 4th District: Dr. George J. Carroll
- 6th District: Dr. H. C. Alexander, III
- 8th District: Dr. Thomas L. Lucas
- 10th District: Dr. W. Leonard Weyl

Vice-Councilors were then nominated for the first time in the history of the Society and the following elected:

- 1st District: Dr. Harold L. Williams
- 2nd District: Dr. K. K. Wallace, Jr.
- 3rd District: Dr. Percy Wootton
- 4th District: Dr. Gordon G. Birdsong
- 5th District: Dr. Anthony J. Munoz
- 6th District: Dr. Walter S. Johnson
- 7th District: Dr. George M. Nipe
- 8th District: Dr. Harold C. Kuykendall
- 9th District: Dr. Joseph H. Early, Jr.
- 10th District: Dr. C. Barrie Cook

The following nominations for the State Board of Medical Examiners were received and will be submitted to the Governor for consideration:

- 1st District: Dr. John T. Myles  
Dr. Cecil F. Evans, Jr.  
Dr. Walter A. Eskridge
- 2nd District: Dr. Clarence B. Trower, Jr.  
Dr. Robert A. Morton  
Dr. A. Ray Goodwin
- 10th District: Dr. Howard O. Mott  
Dr. John E. Prominski  
Dr. Francis G. Gentile

It was then reported that the terms of Dr. W. Callier Salley, Delegate to AMA, and Dr. William Grossmann, Alternate Delegate, would expire December 31.

The names of Dr. Salley and Dr. Grossmann were placed in nomination and Dr. Salley was re-elected.

Dr. William S. Hotchkiss and Dr. James C. Respass were nominated for the position of Alternate Delegate and Dr. Hotchkiss was elected.

A Certificate of Distinguished Service was presented by Dr. Hotchkiss to Dr. W. Linwood Ball. Dr. Ball served for many years as a Delegate to the American Medical Association and was also a Past-President and member of the Board of Trustees of AMA. Dr. Carrington Williams, Jr., accepted the Certificate in Dr. Ball's behalf.

Dr. Hagood then assumed the chair and requested Dr. Weyl to present the report of Reference Committee No. 1.

## REFERENCE COMMITTEE No. 1

### *Committee Reports:*

The following reports were adopted as recommended by the Committee: Executive Secretary-Treasurer, Public Relations, Nursing, Rehabilitation, Cancer, AMA Delegates, and Highway Safety.

### *Report of Council:*

Those items in the Report of Council to the House of Delegates having to do with Collective

Bargaining and Phase II—Economic Controls were approved.

*Resolution on Award Presented by the President's Committee for Physically Handicapped:*  
(Sponsored by Committee on Rehabilitation)

*The House concurred* with the Committee's recommendation that this resolution be adopted. Dr. William P. Fletcher, Harrisonburg, is nominated to receive the award which goes annually to the physician doing most toward employment of the physically handicapped.

*Resolution on Joint Practice Commission:*  
(Sponsored by Stuart Medical Society)

It was the Committee's recommendation that this particular resolution be deferred until such time as the Governor's Committee on Allied Health Professions has made its report. *The House agreed and the resolution was postponed indefinitely.*

#### Peer Review:

The Committee, in its deliberations, considered as an entity the report of the ad hoc committee on peer review and resolutions introduced by Dr. J. B. Hutt, Jr. and Dr. Baxter Byerly. The ad hoc committee was commended on its excellent work during the past year. The appointment of a follow-up ad hoc committee was recommended for the purpose of developing a detailed, workable plan of P.S.R.O. The plan, upon its completion, would be circulated to Council and all component medical societies prior to the next Annual Meeting of The Medical Society of Virginia. It would then be presented to the House of Delegates during its meeting in Norfolk on October 18, 1973.

*The Committee's recommendation was adopted.*

#### Budget for Fiscal 1972-73:

It was the Committee's recommendation that the proposed budget for fiscal 1972-73, in the amount of \$246,000.00, be adopted. *The House concurred* and the budget follows in detail:

#### EXPENSES:

Salaries	\$ 88,465.00
Telephone & Telegrams	2,200.00
Postage	2,000.00
Stationery and Supplies	2,500.00
Office Equipment—Repairs & Replacements	2,500.00
Building Maintenance & Repairs—net	12,500.00
Convention Expenses	6,600.00
Council and Committee Expense	3,800.00

#### Travel Expenses:

Executive Assistant	\$ 400.00
Delegates to AMA	4,800.00
President	3,000.00
Executive Vice-President	1,700.00
Component Society Liaison	1,100.00
Virginia Medical Monthly	45,000.00
Legal Expense	16,000.00
Walter Reed Commission	500 00
Woman's Auxiliary	100.00
Membership Dues (Affiliated Organizations)	660.00
Editor—Virginia Medical Monthly	1,000.00
VaMPAC (Educational Fund)	12,000.00
News and Views	300.00
Retirement Fund	18,000.00
Payroll Taxes	4,400.00
Public Relations	2,000.00
Miscellaneous	725.00

#### Special Appropriations:

Virginia Council	5,000.00
AMA-ERF	1,000.00
Rural Health	500.00
Scholarship—MCV—(Administered by The Medical Society of Virginia)	2,000.00
Scholarship—UVA School of Medicine—(Administered by The Medical Society of Virginia)	2,000.00
National Society for Medical Research	150.00
Miscellaneous AMA	800.00
Hearing Information Center	2,300.00

TOTAL	\$246,000.00
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*The report of Reference Committee No. 1 as a whole was then adopted.*

Dr. Anthony J. Munoz was then requested to present the report of Reference Committee No. 2.

#### REFERENCE COMMITTEE No. 2

#### Committee Reports:

The following reports were adopted as recommended: Medical Education, Maternal Health, Mental Health, Child Health, Ethics and Judicial.

A recommendation was made that the Legislative Committee Report be approved with the exception of the first paragraph having to do with education. *The House agreed* and the paragraph concerned was amended to read as follows:

"Chapter 761 (SB 144) was enacted so as to require a comprehensive physical examination of every child to be admitted to a public kindergarten or elementary school and provides that the local health departments shall conduct such physical examinations without charge for those who are indigent."



### *Report of Council:*

Acting upon the recommendation of the Committee, *the House approved the following items* contained in the Report of Council: Medical Examiner System, Smallpox, Membership Records, Medical Assistants, Non-physician Groups and Nominating Procedure.

Although it was the Committee's recommendation that the portion of the report having to do with "Certificate of Need" not be approved, *the House rejected the recommendation and voted its approval.*

### *Resolution on Certificates of Need:*

(Sponsored by Newport News Medical Society)

The Reference Committee reported that it had received testimony from a number of physicians and reviewed a considerable amount of material on the subject. The resolution would have The Medical Society of Virginia urge the General Assembly to reject any "Certificate of Need" legislation designed to restrict the construction and operation of privately financed health care facilities in Virginia.

It was the Committee's recommendation that the resolution be adopted.

After considerable debate, *the House voted to reject the recommendation and postpone indefinitely.*

### *Resolution in Posting of Bonds in Malpractice Suits:*

(Sponsored by Culpeper County Medical Society)

In keeping with the Committee's recommendation, *the House approved the following resolution:*

RESOLVED, that The Medical Society of Virginia endorse legislation which will require the posting of a bond in the amount of \$2,500.00 by plaintiffs who institute a malpractice suit against physicians or other health professional persons if the suit includes a claim for punitive damages. If such suit is unsuccessful then the bond proceeds should be payable to the defendant to be used by him to pay for court costs and legal fees incurred in defense of the suit.

### *Resolution on Labeling of Prescriptions:*

(Sponsored by Halifax County Medical Society)

*The House then voted to accept the Committee's recommendation* that the following resolution be adopted:

WHEREAS, the average patient is not aware of problem in an emergency medical facility depends upon knowing the exact medication(s) he is taking; and

WHEREAS, the average patient is not aware of the names of the medications he is taking; and

WHEREAS, children frequently present to emergency facilities having ingested medications from unlabeled medicine containers; therefore, be it

RESOLVED, that The Medical Society of Virginia support legislation requiring the labeling of prescription medication containers unless specifically written by the physician: "DO NOT LABEL".

### *Resolution on McClelland Bill:*

(Sponsored by Halifax County Medical Society)

In accordance with the Committee's recommendation, *the following resolution was adopted:*

WHEREAS, access to the world's medical literature in all medical and surgical specialties is requisite to post-graduate medical education; and

WHEREAS, patient care is positively affected by the continued postgraduate education of physicians; and

WHEREAS, community hospitals, especially those in rural areas are limited in the journals to which they subscribe and the new textbooks they acquire; and

WHEREAS, current information is readily available to the individual physician through the photocopying facilities of the outstanding Virginia Medical Information Service (VAMIS); therefore, be it

RESOLVED, that The Medical Society of Virginia urge Virginia's Congressmen to support the McClellan Bill (S 644) which would exempt libraries and individuals from the copy-right provisions for photocopying services.

### *Resolution on Smallpox Vaccinations:*

(Sponsored by Halifax County Medical Society)

*The House concurred with the recommendation that this resolution, which would support the repeal of Section 22-249 of the Virginia Code dealing with mandatory smallpox vaccination as a requirement for school entrance, be postponed indefinitely.*

### *Resolution on Medical-Pharmaceutical-Hospital Committee:*

(Sponsored by Halifax County Medical Society)

The Committee recommended that this resolution be amended by inserting the words "*with it*" immediately following the word "conjoin". *The House agreed* and the resolution was adopted as follows:

RESOLVED, that The Medical Society of Virginia invite the Virginia Pharmaceutical Association and Virginia Hospital Association to conjoin *with it* for the purpose of identifying mutual problems, discussing solutions to these problems and recommending specific action on these problems to the three organizations.

*Resolution on Antisubstitution:*

(Sponsored by Halifax County Medical Society)

It was the recommendation of the Committee that the following resolution be adopted. *The House concurred.*

WHEREAS, it has been the established policy of the American Medical Association and the

WHEREAS, the 1970 session of the House of great majority of its component societies to oppose compulsory generic prescribing; and Delegates of the American Pharmaceutical Association called for the repeal of all State laws forbidding substitution in the filling of prescriptions; and

WHEREAS, during its 91st Annual Convention in Fredericksburg (1972) the Virginia Pharmaceutical Association's House of Delegates adopted Resolution #18 calling for repeal of Virginia's antisubstitution laws; and

WHEREAS, it has been shown repeatedly that "generic equivalents" frequently do not produce equal therapeutic actions or result in a monetary saving to the patient; and

WHEREAS, this action of the Virginia Pharmaceutical Association would, if effected, be contrary to the public interest by taking from the physician his right and duty to be primarily responsible for the medication prescribed for and received by his patient; therefore, be it

RESOLVED, that the House of Delegates of The Medical Society of Virginia reaffirm its 1970 opposition to the repeal or dilution of any state or national antisubstitution laws or regulations governing the filling of the physician's medical prescription by a pharmacist; and, be it further

RESOLVED, that a copy of this resolution be sent to the American Medical Association, National Pharmaceutical Association, The Virginia Pharmaceutical Association and the Honorable Andrew P. Miller, Attorney General of Virginia.

*Resolution on School Bus Safety:*

(Sponsored by Culpeper County Medical Society)

*The House agreed that this resolution, containing a number of school bus safety proposals, should be referred to the Committee on Highway Safety.*

*Resolution Concerning Contingency Fees in the Practice of Law:*

(Sponsored by Fairfax County Medical Society)

Acting upon the Committee's recommendation, *the following resolution was adopted:*

WHEREAS, dollar amount settlements are rising in civil actions, malpractice and otherwise, encouraging the public to consider physicians "fair game"; and

WHEREAS, insurance companies are returning these costs to the physician by increasing his premium; and

WHEREAS, the United States is the only major nation which permits this form of fee agreement between client and attorney; therefore, be it

RESOLVED, that The Medical Society of Virginia abhor the contingency fee system in the practice of law, and that this action be reported to the Virginia State Bar Association, the Governor, the House and Senate of our State Legislature.

*The report of Reference Committee No. 2 was then adopted as amended.*

Dr. Gerald Fisher was next called upon for the report of Reference Committee No. 3.

REFERENCE COMMITTEE No. 3

*Committee Reports:*

The following reports were adopted as recommended: Grievance, Regional Medical Program, Air Pollution, Venereal Disease, Membership, Advisory to Woman's Auxiliary, Insurance and Insurance Review.

The Committee called attention to that portion of the report having to do with medical aspects of sports which stated that an increasing effort has been made to have all local medical societies form sports committees and increase liaison between athletic departments in recreation and school systems. Such liaison would, hopefully, bring about an effective transfer of medical and sports information and result in effective regional sports programs.

*The House agreed that a special effort should*



be made to bring this subject to the attention of all physicians in the State in order that their cooperation might be obtained.

*The House also approved* a recommendation that the Committee on Medical Aspects of Sports work with the Virginia High School League and Virginia Coaches Association in arranging panels on sports medicine at all future coaching clinics.

The overall report of the Committee on Medical Aspects of Sports was then approved with incorporation of the above recommendations.

*Report of Council:*

Approval was voted for the following items contained in the Report: Comprehensive Health Planning Councils, Insurance for Members, Joint Screening Panel (includes an amendment proposed by the Liaison Committee to the State Bar which will, in the future, prevent suits being filed by the plaintiff's attorney when the opinion of the Screening Panel is "negative").

In its consideration of that portion of the report having to do with Patient Control, the Committee recommended that a copy of the AMA resolution on the subject be brought to the attention of the Virginia Hospital Association. *The House concurred.*

*Resolution on Admission Guidelines for Medicare and Medicaid:*

(Sponsored by Fairfax County Medical Society)

The Committee recommended that this resolution be amended by adding a second "Resolved" calling for an introduction of a similar resolution during the 1973 AMA Annual Meeting. *The House agreed* and the resolution now reads as follows:

WHEREAS, physicians in private practice have had difficulty conforming to the changing guidelines for admission of their patients to hospitals and nursing homes who are eligible for Medicare and Medicaid; and

WHEREAS, many deserving sick people have not had access to their just benefits because of restrictive criteria administered by non-M.D.'s, therefore, be it

RESOLVED, that The Medical Society of Virginia request the Department of H.E.W. and appropriate State Agencies involved to set specific criteria for prospective admissions, rather than be subject to "after the fact" rejection of claims which impose enduring financial hardships on our patients and their families; and therefore, be it further

RESOLVED, that the delegates to the American Medical Association, from The Medical

Society of Virginia, present to that body at its 1973 Annual Meeting a resolution similar to the foregoing, both in intent and content.

*Resolution on Cooperation with Blue Shield of Virginia:*

(Introduced by Dr. Thomas W. Murrell, Jr.)

*The House voted to accept the Committee's recommendation that the following resolution be adopted* and that the membership be urged to support it in every possible manner:

WHEREAS, the quality, cost and delivery of health care to all citizens of Virginia is a matter of concern to The Medical Society of Virginia, Blue Cross of Virginia and Blue Shield of Virginia; and

WHEREAS, the Boards of Directors of Blue Cross of Virginia and Blue Shield of Virginia have resolved to concentrate the efforts of the Plans on the improvement of the existing fee-for-service health care approach, and have directed Plans management to enter into no further negotiations on prepaid group practice or health maintenance plans until experience is gained on a plan at the University of Virginia; be it, therefore,

RESOLVED, that The Medical Society of Virginia actively sponsor, support and participate in peer review and in-hospital utilization review programs by disinterested physicians, and such other controls as may favorably impact the cost and quality of care provided under the fee-for-service approach; and be it further

RESOLVED, that there be established a closer coordination and more direct communication between the Plans and The Medical Society of Virginia; and be it further

RESOLVED, that the Society provide support for Blue Shield's usual, customary and reasonable payment program for physicians' services, including encouragement of wider acceptance of allowances under this program as "payment in full" by non-participating physicians; and, be it further

RESOLVED, that The Medical Society of Virginia urge and encourage its members to become participating physicians in Blue Shield of Virginia.

*Resolution Having to Do with Payment by Blue Shield for Certain Laboratory Tests:*

(Sponsored by Alexandria Medical Society)

Although the Committee made it quite clear that it understood and appreciated the intent of this resolution, it recommended that no definitive action be taken at the moment. Rather, it recommended that the matter be studied in detail

by a joint committee of The Medical Society of Virginia, Virginia Hospital Association and Blue Shield of Virginia. It expressed the hope that this study would deal not only with SMA-12 tests but with other diagnostic procedures as well.

*The Committee's recommendation was approved.*

#### *Resolution on Venereal Disease:*

(Introduced by Dr. Harold I. Nemuth)

*The House, acting on the Committee's recommendation, adopted the following resolution:*

WHEREAS, the venereal diseases, gonorrhea and syphilis, have reached epidemic proportions throughout Virginia, there being 15,216 cases of gonorrhea and 1,921 cases of syphilis reported during fiscal year 1972; and

WHEREAS, these diseases being damaging to the growth of individuals and communities, pertaining particularly to (over 50%) young people fifteen to twenty-four years of age; and

WHEREAS, screening efforts of the Virginia State Department of Health have now been expanded to screening of females for gonorrhea and epidemiologic follow-up to reduce the existing reservoir of asymptomatic gonorrhea in our communities; and

WHEREAS, services are now being provided to all segments of the medical community including screening materials and laboratory services for gonorrhea testing; and

WHEREAS, it is estimated that 80% of the cases of venereal disease are treated in private practice; be it

RESOLVED, The Medical Society of Virginia support the efforts of the Virginia State Health Department in screening efforts and epidemiologic follow-up; and

RESOLVED, that in order to combat the increasing incidence of venereal diseases the members of The Medical Society of Virginia join in a cooperative effort with the Virginia Department of Health by assessing the extent of venereal disease problems in their respective private practices and communities; and

RESOLVED, that the members of The Medical Society of Virginia avail themselves of the opportunity to routinely test patients for gonorrhea and assist the State Department of Health in the epidemiologic follow-up of venereal disease cases.

#### *Resolution on Proposed FDA Regulations:*

(Sponsored by Halifax County Medical Society)

*The House agreed with the Committee's strong*

recommendation that the following resolution be adopted:

WHEREAS, the proposed rule change by the Food and Drug Administration titled, "Legal Status of Approved Labeling for Prescription Drugs; Prescribing for Uses Unapproved by The Food and Drug Administration", may seriously damage the physician's ability to care for his patient, because this proposed rule outlines a series of increasingly oppressive actions which the FDA says it intends to take against the manufacturer "when an unapproved use of a new drug may endanger patients or create a public health hazard, *or provide a benefit to patients or to the public Health*" (underlying added). It is reasonable to expect subsequent penalties may be visited upon any offending physician; and

WHEREAS, the proposed rule would force a physician to decide whether to break the law or not to break the law and thereby assume a greater medico-legal liability, when faced with a choice to use or not to use a drug for an "unapproved" use on a patient when he *knows* from his clinical experience the drug would benefit his patient; and

WHEREAS, the proposed rule does not require a physician to file with the FDA an investigational new drug application in order to lawfully prescribe a drug for an "unapproved" use, the preamble contains wording which could be used by plaintiff's attorneys in efforts to increase the potential liability involved in such prescribing; therefore, be it

RESOLVED, The Medical Society of Virginia is opposed to the proposed rule change, titled "Legal Status of Approved Labeling of Prescription Drugs; Prescribing for Uses Unapproved by the Food and Drug Administration", Federal Register, Volume 37, No. 158—Tuesday, August 15, 1972, because it exceeds the authority of the Food, Drug & Cosmetic Act in that it interferes with the practice of medicine; and

RESOLVED, the FDA respectfully be advised to consult the American Medical Association if it believes this subject is of such importance that some ruling must be made in order to improve the quality of medical care in the United States; and

RESOLVED, a copy of this resolution be sent to the Hearing Clerk of the Department of Health, Education & Welfare, the Senators and Congressmen from Virginia and the President of the American Medical Association.

*The report of Reference Committee No. 3 as a whole was then adopted.*



Dr. Harold Nemuth then obtained consent to introduce the following resolution of appreciation *which was seconded and adopted*:

RESOLVED: That the House of Delegates express to the Committee on Arrangements of the Williamsburg-James City Medical Society and the Program Committee of The Medical Society of Virginia its sincere appreciation for one of the finest of all Annual Meetings; and be it further

RESOLVED: That the Staff of the Williamsburg Lodge and Conference Center be thanked for its part in making the meeting such a pleasant and memorable event.

Dr. Arthur A. Kirk called the attention of the House to the many contributions made by Dr. Thomas S. Edwards as Speaker of the House and by Dr. William Grossmann as an Alternate Delegate to AMA. On his motion, they were accorded a rising vote of thanks.

There being no further business, Dr. Edwards declared the meeting adjourned.

ROBERT I. HOWARD, *Secretary*

APPROVED:

THOMAS S. EDWARDS, M.D., *Speaker*

The following reports were presented to the House of Delegates but have not been previously published.

#### Publication

There is one item concerning the Virginia Medical Monthly I would like to add in addition to the financial references made by Mr. Howard in his annual report.

Last spring *The Committee Studying the Future Mission of the Society* suggested that "It is hoped that the Virginia Medical Monthly will develop more medical socio-economic articles with both sides being brought out. We believe this will stimulate interest in the magazine and help educate the membership."

Your journal has published about 45 guest and regular editorials during the past five years dealing with this general subject and I am confident it will continue as suggested by the Committee. It is entirely possible that some readers have gotten the impression that your Editorial Board is perhaps a bit conservative regarding medical socio-economic matters. I don't know where this idea originated but I would like to dispel this thought by urging members to send in articles and guest editorials dealing with the more liberal aspects of medical and socio-economic matters.

Anything the members of the Editorial Board might write along this line could be misinterpreted but I promise that anything received by the journal, short of actual libel, will be published.

H. J. WARTHEN, M.D., *Chairman*

#### Peer Review

The Peer Review Committee was appointed at a time when passage by Congress of the Bennett Amendment seemed imminent. This act required the development of a Professional Standards Review Organization (PSRO) in all of the states. The early meetings of the Peer Review Committee were held under the pressure of this urgency. As time went on it became obvious that the passage of the Bennett Amendment was to be long delayed and perhaps would not be passed at all.

Many factors are at work causing this delay. There is sharp disagreement within the Department of Health, Education and Welfare. Many favor the consumer rather than the physician as the controlling voice in the evaluation of the quality of medical care. Many hospitals and the Joint Commission on Accreditation of Hospitals seem to prefer to maintain control of hospital practice by the medical staff of each individual hospital. The AMA is opposed to some aspects of the Bennett Amendment, especially its punitive portions.

Regardless of this delay some form of Peer Review law seems inevitable. A strong central Peer Review organization that can cope with other contesting strong groups seems most likely to best protect the interest of the patient as well as the physician.

#### Activities:

##### *Meetings of the Peer Review Committee (6)*

Meetings were held with representatives of the following organizations:

1. Georgia Medical Care Foundation.
2. Department of Health, Education, and Welfare.
3. Virginia State Health Department representing Medicaid.
4. Travelers Insurance Company (Medicare).
5. Blue Cross-Blue Shield.
6. Health Insurance Council (representing the health insurance industry).
7. Virginia Regional Medical Programs.

##### *Inspection of Peer Review foundations*

1. New Mexico Medical Society.
2. Mississippi State Medical Society.
3. Georgia Medical Care Foundation.
4. Hawaii Medical Foundation.

##### *Joint meetings with the Albemarle County Medical Society Experimental Care Review Organization (EMCRO).*

An excellent cooperative program was established with this organization.

Members of the Albemarle County EMCRO have been extremely helpful in sharing their "expertise" with the committee. The EMCRO has provided funds for site visits to peer review foundations and has assisted in the establishment of a small grant to aid The Medical Society of Virginia in its search for an adequate peer review system.

### *Findings:*

1. All peer review foundations studied thus far have had serious problems. Most of these are the result of limited experience and attempting too much too soon.
2. Very few organizations are actually performing "peer review" but are processing complaints and in some instances they are processing physicians claims for services.
3. The experimental medical care review organizations and the Mississippi Foundation appear to be most advanced in performing actual peer review.
4. The representatives of the insurance industry and other medical care programs who met with the Committee, appeared to be extremely cautious about their potential relationships to a Virginia peer review program. All expressed a willingness to cooperate, however. It did not appear likely that much help could be expected from these sources toward financing a peer review organization. However, they can be expected to cooperate to a limited degree with a full program.
5. The present trend in peer review emphasizes education of the physician. The California Medical Society's continuing education program gives credit for physician participation in peer review. There is no question that peer review can be used as a major tool in medical education.

### *Recommendations:*

1. A Statewide Peer Review Organization should be formed by The Medical Society of Virginia.
2. The Statewide Peer Review Organization should be a medical foundation incorporated along the lines of the Mississippi Foundation. (Organizational chart attached.)
3. Regional divisions of the Virginia Foundation should be established so that local problems such as population density and variations in standards dependent upon facilities can be appropriately resolved.
4. The appropriate criteria for medical care will need be developed by the Virginia Foundation. The development of appropriate criteria is a very large undertaking and will require the cooperation of all of the specialty societies and the Academy of Family Practice.
5. The Foundation should begin its operations on an experimental basis in one or two locations and expand its functions as it gains experience and financial support.
6. Applications or funds to support the foundation could be made to the Johnson and Johnson Fund and any other possible sources of money.
7. Close cooperation should be maintained with the Albemarle County EMCRO for the mutual benefit of both organizations.
8. Peer review, if properly conducted, offers the physicians of Virginia their best opportunity to insure the best medical care possible to the people of Virginia.

The term "Peer Review" as it is used in this report may be defined as "the evaluation by practicing physicians of the quality and efficiency of services ordered or performed by other practicing physicians".

WILLIAM H. CHAPMAN, M.D.  
JOSEPH H. EARLY, JR., M.D.  
THOMAS L. GORSUCH, M.D.  
R. L. A. KEELEY, M.D.  
WILLIAM D. LIDDLE, M.D.  
ALAN MACKINTOSH, M.D.  
FRANCIS H. MCGOVERN, M.D.  
KINLOCH NELSON, M.D.  
HAROLD L. WILLIAMS, M.D.  
WILLIAM M. O'BRIEN, M.D.  
Albemarle County EMCRO  
MORTON C. WILHELM, M.D.  
Albemarle County EMCRO  
ROBERT K. MADDOCK, M.D., *Chairman*

### **Insurance Review**

We hear a great deal about peer review these days and it seems that medical societies over the Nation are busy studying new and better methods of making such review possible.

The truth of the matter is that there are all kinds of peer review and your Committee has been actively concerned with claims review for over 17 years. The Committee actually started as a subcommittee of the Medical Service Committee and was appointed at the suggestion of the Health Insurance Council. Its purpose over the years has remained unchanged—to resolve fairly those questions raised by the various carriers with reference to physicians' fees.

During the early years of its existence, the Committee received comparatively few requests for its recommendations. The last ten years, however, have brought many changes and the number of cases referred to your Committee has steadily increased. The past twelve months have been the busiest ever—nearly 400 referrals having been received from six carriers. Most were resolved in a manner seemingly satisfactory to all concerned.

The Committee did take exception to the wording of a number of letters written to patients and physicians by several carriers. The letters were misleading in that they seemed to imply deliberate overcharging by some physicians. As a result of a vigorous protest by your Chairman, the carriers concerned have given assurance that such letters will not be sent in the future.

Although we do not know what the future holds, we will continue to do our part in helping resolve the numerous claims problems referred to the Committee almost daily. We hope that our efforts are bringing better understanding and closer working relationship between physicians and carriers.

BEVERLEY B. CLARY, M.D., *Chairman*

### **50-Year Club Members**

Walter Paul Adams, M.D., Norfolk  
Joseph Rogers Blalock, M.D., Marion



Robert Frederick Cline, M.D., Winchester  
Joseph Coates, M.D., Galax  
Andrew Muncy Groseclose, M.D., Roanoke  
Malcolm Hart Harris, M.D., West Point  
Frank Helvestine, Jr., M.D., Roanoke  
Charles Bruce Morton, II, M.D., Charlottesville  
Emanuel Newman, M.D., Vienna  
Blanton Page Seward, M.D., Roanoke  
Thomas Meredith Winn, M.D., Covington

**Members Whose Deaths Have Been Reported Since  
1971 Annual Meeting**

Howard Hicks Asbury, M.D.  
Joseph Eagle Barrett, M.D.  
Dorman Sherman Camden, M.D.  
William Gayle Crutchfield, M.D.  
Michael George Dewey, M.D.  
Frederick Peter Fletcher, M.D.  
Thomas Christy Gentry, M.D.  
Isaac Harry Goldman, M.D.  
James Noah Greear, Jr., M.D.  
Frederick Eugene Hamlin, M.D.  
George Geddy Hankins, M.D.  
Herbert Rudolph Hartwell, M.D.

Grey Carlton Hughes, M.D.  
James Morrison Hutcheson, M.D.  
Frederick Matthes Jacobs, M.D.  
Ernest Harriman Joy, M.D.  
Richard Edward Kelso, M.D.  
Frank R. Klune, M.D.  
Henry Thomas Kulesher, M.D.  
Charles Frank Manges, M.D.  
Berkeley Hancock Martin, M.D.  
Theodore Baldwin McCord, M.D.  
Harry Gardner Middlekauff, M.D.  
John Hoover Moon, M.D.  
Marvin Pinckney Moore, M.D.  
James Coleman Motley, M.D.  
Boyd Hawthorne Payne, M.D.  
Richard Hemans Price, M.D.  
Louis Joseph Richman, M.D.  
George Sterling Row, M.D.  
Charles Linwood Savage, M.D.  
Jim Scow, M.D.  
Abraham Samuel Smith, M.D.  
Frank Ellsworth Tappan, M.D.  
Leo Frederick Timp, M.D.  
Howard Urbach, M.D.  
Aurelius McGarvey Wallace, M.D.

Auditor's Report

THE MEDICAL SOCIETY OF VIRGINIA  
4205 DOVER ROAD  
RICHMOND, VIRGINIA

We have examined the financial statements of The Medical Society of Virginia, Richmond, Virginia, for the year ended September 30, 1972, as listed in the foregoing table of contents. With the exceptions noted in the immediately following paragraph, our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The accounts receivable and accounts payable were not verified by direct confirmation; however, the amounts are not material in relation to the financial position as a whole.

It is our opinion that the Balance Sheet presents fairly the financial position of the Society at September 30, 1972, in accordance with generally accepted principles of accounting. The Statement of Income and Expenses is prepared on the basis of cash receipts and disbursements.

MITCHELL, WIGGINS & COMPANY  
Certified Public Accountants

October 18, 1972

BALANCE SHEET  
September 30, 1972

ASSETS			
GENERAL FUND			
Cash in banks.....	\$266,717.00		
Accounts receivable:			
Dues from members—Estimated collectible value—			
1971 dues.....	\$8,800.00		
Advertising—Virginia Medical Monthly.....	2,110.94	10,910.94	
			<u>\$277,627.94</u>

BUILDING FUND			
Land and buildings—At cost.....	\$113,723.67		
Furniture and equipment:			
Estimated value—October 1, 1950.....	\$5,353.11		
Cost of acquisitions after October 1, 1950.....	9,896.44	15,249.55	
			<u>\$128,973.22</u>

LIABILITIES AND SURPLUS			
GENERAL FUND			
Accounts payable:			
Preparation of Medical Journal—September, 1972.....	\$	3,621.31	
Surplus:			
Available for appropriation:			
Balance—September 30, 1972.....		274,006.63	
			<u>\$277,627.94</u>

BUILDING FUND			
Surplus invested in tangible property....	\$128,973.22		
			<u>\$128,973.22</u>

STATEMENT OF SURPLUS			
For the fiscal year ended September 30, 1972			
GENERAL FUND			
Balance—October 1, 1971.....	\$260,103.52		
Add:			
Excess of income over expenses.....	\$10,984.51		
Increase in accounts receivable.....	3,181.14	14,165.65	
			<u>\$274,269.17</u>
Deduct:			
Increase in accounts payable.....		262.54	
Balance—September 30, 1972.....	\$274,006.63		<u>\$274,006.63</u>



# STATEMENT OF INCOME AND EXPENSES

For the fiscal year ended September 30, 1972

INCOME	Actual	Budget
Membership dues.....\$203,268.06		
Less: Allocated as subscriptions to journal..... 15,168.00	\$188,200.06	
Interest on investments.....	7,770.67	
American Medical Association.....	2,200.85	
Gift from member.....	300.00	
Virginia Medical Monthly:		
Advertising.....\$ 30,735.57		
Subscriptions: Members..... 15,168.00		
Nonmembers..... 842.94	46,746.51	
TOTAL.....	\$245,218.09	
EXPENSES		
Salaries.....\$ 83,002.13	\$ 84,265.00	
Telephone..... 2,409.77	2,000.00	
Postage..... 2,210.18	2,000.00	
Stationery and supplies..... 3,336.62	2,500.00	
Office equipment: New..... 1,426.44		
Repairs and replacements..... 121.09	3,000.00	
Building maintenance and repairs—Net..... 14,471.68	12,500.00	
Convention expense..... 6,803.16	2,000.00	
Council and committee expense..... 3,855.42	3,500.00	
Travel: Executive assistant..... 494.03	500.00	
Component society liaison..... 1,048.62	1,000.00	
Executive secretary..... 2,030.83	2,000.00	
Delegates to American Medical Association..... 5,889.39	6,000.00	
President's expense..... 1,443.98	3,000.00	
Preparation and distribution of medical journal..... 41,590.76	39,000.00	
Legal expense..... 16,828.59	10,000.00	
Walter Reed Commission..... 500.00	500.00	
Woman's Auxiliary..... 73.11	100.00	
Membership dues—Affiliated agencies..... 645.00	600.00	
Editor—Virginia Medical Monthly..... 1,000.00	1,000.00	
Special appropriations:		
Virginia Council Health and Medical Care..... 5,000.00	5,000.00	
American Medical Education Foundation..... 1,000.00	1,000.00	
Rural Health..... 500.00	500.00	
Scholarship: Medical College of Virginia..... 2,000.00	2,000.00	
University of Virginia..... 2,000.00	2,000.00	
National Society of Medical Research..... 150.00	150.00	
Maternal Health Television Spots..... 1,000.00	1,000.00	
Other special appropriations..... 843.72	3,000.00	
Virginia Medical Political Action Committee..... 12,000.00	12,000.00	
News and views..... 222.36	500.00	
Employees' retirement fund..... 15,318.48	10,000.00	
Payroll taxes..... 3,585.66	3,000.00	
Miscellaneous..... 735.65	600.00	
Public relations..... 691.91	3,000.00	
TOTAL.....	\$234,233.58	\$219,215.00
EXCESS OF INCOME OVER EXPENSES.....	\$ 10,984.51	

## FINANCIAL CONDITION

The financial condition of the Society at September 30, 1972, is shown in the balance sheet on the accrual basis of accounting. A comparative summary of the financial condition at September 30, 1972, and September 30, 1971, is presented as follows:

	SEPTEMBER 30,		Increase Decrease*
	1972	1971	
<b>ASSETS</b>			
Cash.....	\$266,717.00	\$255,732.49	\$ 10,984.51
Accounts receivable.....	10,910.94	7,729.80	3,181.14
Land, buildings and equipment.....	128,973.22	127,546.78	1,426.44
<b>TOTALS—ALL FUNDS.....</b>	<b>\$406,601.16</b>	<b>\$391,009.07</b>	<b>\$ 15,592.00</b>
<b>LIABILITIES, SURPLUS AND FUND BALANCE</b>			
<b>Liabilities:</b>			
Accounts payable.....	\$ 3,621.31	\$ 3,358.77	\$ 262.54
<b>Surplus:</b>			
General fund.....	274,006.63	260,103.52	13,903.11
<b>Fund balance:</b>			
Building fund.....	128,973.22	127,546.78	1,426.44
<b>TOTAL—ALL FUNDS.....</b>	<b>\$406,601.16</b>	<b>\$391,009.07</b>	<b>\$ 15,592.09</b>

CASH—\$266,717.00

Recorded cash receipts were accounted for by deposits in the various banks and disbursements were supported by properly signed and endorsed cancelled checks. The balances on deposit at September 30, 1972, were verified by direct correspondence with the banks and examination of certificates and passbooks on hand as follows:

First and Merchants National Bank—Checking account.....	\$101,594.98
Bank of Virginia—Savings account.....	13,554.19
Southern Bank and Trust Company—Savings account.....	1,891.24
Franklin Federal Savings and Loan Association—Savings account.....	20,019.59
Richmond Federal Savings and Loan Association—Savings account.....	28,636.36
First Federal Savings and Loan Association—Savings account.....	13,639.09
Security Federal Savings and Loan Association—Savings account.....	13,709.73
First Federal Savings and Loan Association—Savings account.....	12,742.73
Providence Savings and Loan Association—Certificate of Deposit.....	19,335.40
First and Merchants National Bank—Certificate of Deposit.....	10,000.00
United Virginia Bank—Certificate of Deposit.....	30,000.00
United Virginia Bank—Savings account.....	1,593.69
<b>TOTAL.....</b>	<b>\$266,717.00</b>

BUILDING FUND ASSETS—\$128,973.22

Details of the building fund assets are shown in a separate schedule. No indebtedness against these assets was disclosed by the records.

## OPERATIONS

The results of operations for the fiscal year ended September 30, 1972, are shown in the summary of income and expenses prepared on the cash receipts and disbursements basis. A summary of income and expenses for the current year is compared with the preceding year as follows:

	SEPTEMBER 30,		Increase Decrease*
	1972	1971	
<b>INCOME</b>			
Membership dues—Net of subscription to journal...	\$188,200.06	\$179,004.08	\$ 9,195.98
Medical monthly publication.....	46,746.51	39,389.92	7,356.59
Other operating income.....	10,271.52	8,191.62	2,079.90
<b>TOTALS.....</b>	<b>\$245,218.09</b>	<b>\$226,585.62</b>	<b>\$ 18,632.47</b>



	SEPTEMBER 30, 1972	1971	Increase Decrease*
EXPENSES.....	234,233.58	182,241.77	51,991.81
INCOME IN EXCESS OF EXPENSES.....	\$ 10,984.51	\$ 44,343.85	\$33,359.34*

## BUILDING FUND ASSETS

September 30, 1972

### LAND AND BUILDING—At cost

4205 Dover Road, Windsor Farms,  
Richmond, Virginia:

Land.....	\$ 22,706.58
Office building.....	86,161.68
Furnishings and decorations.....	2,205.41
Lawn sprinkler system.....	2,650.00

TOTAL LAND AND BUILDING.... \$113,723.67

### OFFICE FURNITURE AND EQUIPMENT

Estimated insurable value at October 1, 1950.....	\$ 5,353.11
Purchased subsequent to October 1, 1950:	
Cost during fiscal year ended September 30, 1951.....	\$ 951.65
Cost during fiscal year ended September 30, 1959.....	6,749.65
Cost during fiscal year ended September 30, 1971.....	768.70
Cost during fiscal year ended September 30, 1972.....	1,426.44
	9,896.44

TOTAL OFFICE FURNITURE AND EQUIPMENT..... \$ 15,249.55

TOTAL BUILDING FUND ASSETS.... \$128,973.22

## IN GENERAL

The bookkeeping records were found to have been kept in a satisfactory manner.

Insurance in force at September 30, 1972, determined from policies on file, is shown below:

### FIRE AND EXTENDED COVERAGE

Building—Windsor Farms, Richmond, Virginia—80% Coinsurance.....	\$ 92,000.00
Office furniture and fixtures—80% Coinsurance.....	\$ 15,000.00

### BUSINESS LIABILITY

Bodily injury.....	\$100,000.00—\$300,000.00
Property damage.....	\$ 25,000.00
Medical.....	\$ 250.00—\$ 10,000.00

### AUTO LIABILITY—NONOWNERSHIP

Bodily injury.....	\$100,000.00—\$300,000.00
Property damage.....	\$ 25,000.00
Medical.....	\$ 250.00—\$ 10,000.00

### EMPLOYEE HONESTY BONDS

Executive Secretary-Treasurer.....	\$ 5,000.00
Secretary.....	\$ 5,000.00

WORKMEN'S COMPENSATION.....Standard



VOL. I. APRIL, 1874. No. 1.

VIRGINIA  
Medical Monthly.

LANDON B. EDWARDS, M. D.,  
Member of the Va. State Board of Health, Recording Secretary Medical Society of Virginia, &c.,  
Editor and Proprietor.

EDO UT PROSIM.



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Subscription, \$2.00 per Annum, in Advance. Single Copy, 25 Cents.

RICHMOND, VA.



## Volume 100, Number 1

THE JANUARY ISSUE of The Virginia Medical Monthly marks the appearance of Volume 100 of this venerable publication. A comparison of this copy with the illustration of the cover of Volume 1, Number 1, highlights the changes that have taken place in the journal during the past 99 years.

The question may be raised as to whether the chronology has become a little confused, for the first issue appeared in April, 1874, and the present Volume 100 appears slightly less than 99 years later. The discrepancy occurred when the editor decided in 1938 that the fiscal year should correspond to the calendar year, so the subscribers must have lost three copies at the end of the year in question. The centennial too will not occur until 1974 for there is always a lag period of one year in these matters. The 20th century, of course, began on January 1, 1901. This, incidentally, barely permits the writer to qualify as a concept of the 20th century for he first saw the light of day on September 30, 1901.

The cover of the April, 1874, issue has a latin inscription—*edo ut prosim* which translated literally means "I eat so that I may prosper". Well, times were probably bad all over in 1874. The snake coiled about the garden fountain may signify the wily serpent of Aesculapius drinking from the fountain of knowledge.

The table of contents was varied and the articles were doubtless helpful to the physicians a century ago. By happy coincidence, the first two articles in the April issue were prepared by the great-grandfathers of two physicians who are currently practicing in Richmond and who are continuing in the specialties pioneered by their forebears. Minutes of the March meetings of the Richmond Academy of Medicine and the New York Academy of Medicine were duly recorded. Both gatherings were held on March 5 and the prompt appearance three weeks later in the journal was a tribute to both the editor and the printer.

Four pages were devoted to the life and demise of the Siamese twins who died at Mt. Airy, North Carolina, on January 17, 1874. A detailed but belated account of the post-mortem, made three weeks later in Philadelphia, was included as a postscript. Editor Landon B. Edwards agreed with other critics "both at home and abroad at the slipshod and imperfect way in which the autopsy . . . was reported. This comes of letting a matter of science be made a catch-penny by a sensational medical paper confessedly anxious to advertise itself in any way." From this distance it is difficult to learn just what the problem was, but Dr. Edwards, at least, did not approve of it.

A century ago medical journals were not above pirating each other's material and the July issue of the *Virginia Medical Monthly* contained a pithy item by Dr. Edwards directed to the *Richmond and Louisville Medical Journal*, (published in Louisville) and relating to articles contained in the April number stating "We appreciate the compliment of having enriched 12 or 14 pages of the above journal with so large a portion of its valuable matter. But is it generous for 'the largest medical monthly in America' to draw so largely on the pages of a new journal, seeking much of its support from the same field, without giving proper credit for what is deemed of sufficient value

to be copied at length? But we will not say that 'one cannot call *that* journal, *under such circumstances* a very CREDITABLE PERIODICAL'." Fighting words, Suh!

The advertisements were timely and sometimes colorful. The University of Virginia had expanded the medical department to five members. If a student matriculated on October 1, 1874, and continued his courses diligently without interruption until the Thursday preceding the 4th of July, 1875, there was every reason to believe he would receive his medical degree. A. H. Robins of Richmond and Sharpe and Dohme in Baltimore were busy preparing prescriptions. Ayres' improved hernia trusses were "cordially commended" by Drs. James B. McCaw, Hunter McGuire, O. F. Manson and W. W. Parker.

Several years ago the Virginia Medical Monthly was described as "the lengthening shadow of one man" and that man, of course, was Dr. Landon Edwards. For the first 45 years of its existence the journal was edited, published and owned by Dr. Edwards, and briefly by his son, Dr. Charles M. Edwards, who served as editor from 1910 until 1919 when The Medical Society of Virginia purchased it for \$1,000.00. Many members will recall Miss Agnes V. Edwards, daughter and sister respectively of the two previous editors, who continued as Business Manager until her death in 1954. Rarely have two generations of one family played so major a role in a publication throughout a period of 80 years.

The first paragraph of the leading editorial in the initial issue entitled *Salutatory* has a certain modern ring:

"It is not without some degree of trepidation that we enter upon the duties and responsibilities of the editorial management of a medical journal, to be conducted in the interests of a profession unequalled by any other in many of its relations to science and to society. The delicacies and difficulties of our new position are enhanced by the fact that, without experience in this department of public service, we have undertaken the conduct of the Medical Monthly at a time when the science of medicine is making its most rapid advances—demolishing hoary errors, exploding long-established theories, and planting itself, impregnably, upon well-tested principles as its only accepted foundation; and at a period when, with unprecedented rapidity, it is marching forward in the discovery and application of new remedies, and displaying a mastery over disease unparalleled by any previous period in the history of medicine."

The present Editorial Board can say no more or hope no more than to echo it. Amen!

H.J.W.



**Calendar of Events**

STONEBURNER LECTURE SERIES—"Clinical Urology 1973"—Sponsored by Division of Urology, Medical College of Virginia—Richmond—February 22-23, 1973.

LAW INSTITUTE ON HOSPITALS AND MEDICINE—Sponsored by Departments of Legal Medicine and Health and Hospital Administration, Medical College of Virginia—Richmond—March 9, 1973.

NATIONAL MEDICO-LEGAL SYMPOSIUM—Sponsored by American Medical Association—International Hotel—Las Vegas, Nevada—March 22-25, 1973.

NATIONAL CONFERENCE ON RURAL HEALTH—Statler Hilton Hotel—Dallas, Texas—March 29-30, 1973.

TRI-STATE MEDICAL ASSOCIATION—Annual Convention—Charleston, South Carolina—March 29-April 1, 1973.

PEDIATRICS DAY—Sponsored by Department of Pediatrics, Medical College of Virginia—Richmond—April 6, 1973.

SPRING REFRESHER COURSE FOR SPECIALISTS—Sponsored by Gill Memorial Eye, Ear, Nose and Throat Hospital—Hotel Roanoke—Roanoke—April 15-18, 1973.

JOINT COMMISSION ON ACCREDITATION WORKSHOP—Sponsored by Virginia Hospital Association and The Medical Society of Virginia—Sheraton Inn, Military Circle—Norfolk—April 17, 1973.

MEDICAL ETHICS—National Conference sponsored by Judicial Council of American Medical Association—Washington Hilton Hotel—Washington, D.C.—April 26-28, 1973.

VISITING PROFESSOR IN INFECTIOUS DISEASES—Sponsored by Department of Medicine, Microbiology, Pathology, Pediatrics and Division of Infectious Diseases of the Medical College of Virginia—Richmond—May 7-8, 1973.

VIRGINIA HEART ASSOCIATION—Scientific Sessions for Physicians—Sheraton Motor Inn—Fredericksburg—May 22-24, 1973.

SPRING FORUM FOR CHILD PSYCHIATRY—Sponsored by Virginia Treatment Center for Children and Division of Child Psychiatry, Medical College of Virginia—Richmond—May 25, 1973.

ANNUAL ORTHOPEDIC RESIDENTS PAPERS—Sponsored by Division of Orthopedic Surgery—Medical College of Virginia—Richmond—June 1, 1973.

AMERICAN MEDICAL ASSOCIATION—Annual Meeting—New York—June 23-28, 1973.

\* \* \* \* \*

The Medical Society of Virginia maintains a registry of medical meetings and programs of interest to Virginia physicians. You can help by keeping us advised of any meetings scheduled in your area. This will not only help others avoid conflicts but also provide helpful information on opportunities for continuing education.

## **New Members.**

The following members were admitted into The Medical Society of Virginia during the month of October:

S. M. Alavi, M.D., Charlottesville  
Rene Barretto Alvir, M.D., McLean  
Beverley Joan Bayes, M.D., Alexandria  
Gerald LaVonne Brown, M.D., Vienna  
Florencio C. Ching, M.D., Richmond  
Michael L. Connell, M.D., Lynchburg  
Charles Monroe Davis, M.D., Charlottesville  
Maria Desbrand, M.D., Richmond  
Farhand Eslami, M.D., Fairfax  
Paul F. Fitzgerald, M.D., Lynchburg  
Peter Lewis Goodman, M.D., Richmond  
Christina Elizabeth Jaicks, M.D., Covington  
Arthur Norman Kales, M.D., Annandale  
Carol Elizabeth Kennedy, M.D., Lorton  
Emil John Kleinholz, M.D., Richmond  
David Benjamin Moga, M.D., Charlottesville  
Edward Kigran Mulligan, M.D., Edinburg  
Donald Martin Poretz, M.D., Falls Church  
Robert Lawrence Protell, M.D.,  
Charlottesville  
Richard Albert Ratner, M.D.,  
Washington, D. C.  
James Albert Repass, M.D., Richmond  
James Harvey Rester, Jr., M.D.,  
Falls Church  
Edward Emric Ruhnke, M.D., Petersburg  
Robert Allen Reid, M.D., Charlottesville  
Paul Edward Schweisthal, M.D., Vienna  
Charles J. Tegtmeier, M.D., Charlottesville  
Richard Putnam Wenzel, M.D.,  
Charlottesville  
Gordon O. White, M.D., Harrisonburg

## **The Medical Society of Virginia.**

The annual meeting of the Society was held in Williamsburg, November 5-8. Minutes of this meeting, including the new officers, etc., are published in this issue of the Monthly.

The total registration was 801 which included 555 physicians, 19 affiliates, 83 exhibitors and 144 ladies.

The next meeting will be held at the Holiday Inn-Scope, Norfolk, October 18-20, 1973.

## **Dr. Charles M. Caravati,**

Richmond, received the Distinguished Service Award from the Southern Medical Association at its annual meeting in New Orleans, November 13-16. He was honored for his pioneering efforts in the field of gastroenterology in the South and in the Southern Medical Association. Dr. Caravati is professor emeritus for the Department of Medicine of the Medical College of Virginia.

## **Mayor of Emporia.**

Dr. James A. Kirkland has been named Mayor of Emporia, succeeding the late George F. Lee who drowned on October 6th. He has been practicing in Emporia since 1961 and is a former chief of staff at Greensville Memorial Hospital.

## **Dr. Shanholtz Again Honored.**

Dr. Mack I. Shanholtz, commissioner of the State Department of Health, is the first Virginia physician to be honored by the American Association of Public Health Physicians. He has received the Association's Distinguished Service Award presented each year to the outstanding public health physician in the United States. The award cited Dr. Shanholtz's leadership in effecting a partnership between all local health departments and the State health department.

## **Plastic and Reconstructive Surgery Division.**

The Medical College of Virginia has announced the reestablishment of this division with Dr. I. Kelman Cohen as associate professor of surgery and division chairman.

## **Stoneburner Lecture Series.**

The 26th Annual Stoneburner Lecture Series will be held at the Medical College of Virginia February 22-23. The subject will be Clinical Adult and Pediatric Urology and the Stoneburner Lecturer will be Dr. John K. Lattimer, professor and chairman of the Department of Urology, College of Physicians and



Surgeons of Columbia University, New York. His lectures will be on Carcinoma of the Prostate: the Great Widow Maker and The Optimum Treatment for Undescended Testis.

The guest faculty will be Dr. Fletcher C. Derrick, George Washington University School of Medicine, Washington; Dr. Charles J. Devine, Jr., Norfolk; Dr. Ranier M. E. Engel, Johns Hopkins University School of Medicine, Baltimore; Dr. Herman Grossman, Duke University School of Medicine, Durham; Dr. Allan A. Hoffman, Danville; Dr. John J. Murphy, University of Pennsylvania School of Medicine, Philadelphia; Dr. Eugene F. Poutasse, Norfolk; Dr. Arthur W. Wyker, Jr., University of Virginia School of Medicine, Charlottesville; and Dr. John D. Young, University of Maryland School of Medicine, Baltimore. The Medical College of Virginia Faculty members are: Drs. Robert H. Hackler, David M. Hume, Warren W. Koontz, Jr., James L. Mathis, Harold M. Maurer, Charles W. Moncure, Warren H. Pearst, Russell E. Randall, Jr., Jack B. Russell, M. J. Vernon Smith, and John H. Texter, Jr.

### **The American Board of Family Practice**

Announces that it will give its next two-day written certification examination on October 20-21, 1973. Information regarding the examination may be obtained from Nicholas J. Pisacano, M.D., Secretary, American Board of Family Practice, University of Kentucky Medical Center, Annex #2, Room 229, Lexington, Kentucky 40506.

### **American Association of Medical Assistants.**

The Association held its sixteenth annual convention in Phoenix, Arizona, October 17-21. There were 12 members from Virginia registered. Mrs. Ruth Dize, past president of the Association and past president of the Virginia Association, completed her term of office as Speaker of the House of Delegates and Mrs. Lonie Kanak, past president of the Virginia

Association, completed her term of office as Trustee.

The next annual convention will be held in Washington, D. C., in 1973.

### **Physician Needed**

To provide examinations and treatment in Spinal Cord Injury Service of hospital. U. S. licensure required. 875-bed GM&S hospital affiliated with Medical School. Excellent retirement and leave benefits. Nondiscrimination in employment. Contact Chief, Spinal Cord Injury Service, VA Hospital, Richmond, Virginia 23249. Telephone 703-233-9631, ext. 272. (Adv.)

### **Public Health Position Available.**

Very desirable position available in Danville for health director. As a State employee, incumbent directs the public health and medical care program for this active health district. Programs include traditional public health services plus activities under Medicare and Medicaid. As in-service training is provided, experience in public health is not required. Liberal fringe benefits are available. Qualifications—American citizen or declaration, license to practice medicine in Virginia at time of employment, age under 60, effective speaking ability with English, and two years' experience in civilian or military practice or any type residency. Salary \$21,400 to \$30,600, depending on experience, assignment and classification.

Other interesting positions also available. Inquire Director, Local Health Services, Virginia State Department of Health, Richmond, Virginia 23219. Phone 703-770-3575. (Adv.)

### **Emergency Room Physician.**

351-bed Community Hospital; southwest Virginia and Upper East Tennessee area. Tennessee license required. Present group of four physicians expanding to five. \$30,000 plus annually and liberal benefits. Write or call Executive Director, Bristol Memorial Hospital, Bristol, Tennessee 37620. Phone 615-968-1121. (Adv.)

# Obituary . . . .

## **Dr. James T. O'Neal,**

Amelia, died November 9, after a lengthy illness. He was sixty-three years of age and graduated from the Medical College of Virginia in 1935. Dr. O'Neal was honored with a reception in September by Amelia residents and a scholarship was established in his name for students in medicine, pharmacy or nursing. In his more than thirty years of practice in the County he had delivered more than 1500 babies. Dr. O'Neal had been a member of The Medical Society of Virginia since 1939.

His wife and a daughter survive.

## **Dr. Frank William Claytor**

Died October 6, 1972. He was 59 years of age and a graduate of Meharry Medical College in Nashville, Tennessee, in 1937.

The son of the late Dr. John B. Claytor, Sr., one of the founders of Burrell Memorial Hospital, Roanoke, Virginia, he was chief of Medical Services and had served with distinction in the positions of Medical Director, Radiologist, and Acting Administrator of that hospital.

Dr. Claytor served as a Captain in the Medical Corps during World War II. He had served as past president of the Magic City and Old Dominion Medical Societies, and was a member of the Roanoke Academy of Medicine, The Medical Society of Virginia, American Medical Association, and the National Medical Association. He was a member of the Fifth Avenue Presbyterian Church.

Dr. Claytor is survived by his wife, one daughter and seven sons.

Dr. Frank William Claytor, affectionally known to his family and close friends as "Will", and to his professional associates as "F. W.", will be missed by his colleagues, many patients, and

friends, as well as his devoted family which includes among four sisters, Dr. Margaret Claytor Woodbury, Ann Arbor, Michigan, and among three brothers, Dr. John B. Claytor, Jr., and Dr. Walter S. Claytor, both of Roanoke.

THEREFORE BE IT RESOLVED, that this resolution be spread on the minutes of the Roanoke Academy of Medicine.

BE IT ALSO RESOLVED, that a copy of this resolution be sent to his family and to the Editor of the Virginia Medical Monthly for publication.

FEN'N A. VICTOR, M.D.

W. A. CASSADA, JR., M.D.

MAYNARD H. LAW, M.D., *Chairman*

## **Dr. Robert Long Gleason,**

Roanoke, died November 18 at the age of sixty. He received his medical degree from Tulane University in 1938. Before coming to Roanoke six years ago, he had been located in Hampton. Dr. Gleason had been a member of The Medical Society of Virginia for six years.

His wife, a son and a daughter survive him.

## **Dr. Donald Lee Martin,**

Richmond, died November 9 at the age of thirty-nine. He graduated from the Medical College of Virginia in 1961. Dr. Martin was chief of obstetrics and gynecology at Richmond Memorial Hospital and was a clinical instructor at the Medical College of Virginia. He was a member of the Flying Physicians Association and had been a member of The Medical Society of Virginia for five years.

His wife, two sons and two daughters survive him.



## **Modification of Hyperkinetic Behavior by Nortriptyline**

NEIL WATTER, M.D.  
F. E. DREIFUSS, M.D.  
Charlottesville, Virginia

**There has been widespread interest in the drug treatment of the hyperactive child since amphetamines were reported to be effective in 1937. Since then many other drugs have been tried. The present report deals with the use of nortriptyline, a drug which shows therapeutic promise.**

**T**HE USE OF AMPHETAMINES for control of hyperactive behavior in children was first reported by Bradley in 1937. Since that time, a variety of drugs has been used in an attempt to control, or at least minimize, this usually distressing form of behavior. Dextroamphetamine and methylphenidate have been advocated as drugs of choice for the treatment of hyperactivity. Millichap (1968), advocated the use of methylphenidate as the drug of choice, Gofman (1969) preferred dextroamphetamine and Worrel and Bell (1971) felt that they were equally effective. The few controlled clinical trials showed that either dextroamphetamine or methylphenidate were

effective in the control of hyperactive behavior in the majority of patients to whom they were administered. (Clements and Peters, 1962, Conners and Eisenberg, 1963, Weiss, et al., 1968, Conners, et al., 1969, Sprague, Barnes, and Werry, 1970 and Beck, Mackay and Taylor, 1970). Millichap (1968) in a review of the literature found that of a total of 337 patients, 84 percent benefited from methylphenidate, while 69 percent of 610 patients were helped by dextroamphetamine. Two phenothiazines, chlorpromazine and thioridazine, have been described as useful in the treatment of hyperactivity; however, there have been conflicting reports about them. (Clements and Peters, 1962, Werry, et al., 1966, Weiss, et al., 1968 and Sprague, Barnes and Werry, 1970). Reserpine has been used, but has not proven to be very effective (Millichap, 1968). In the same article, Millichap stated that chlor-diazepoxide, hydroxyzine HCL meprobamate, fluphenazine HCL, and chlorprothixene have also been tried.

From 1965 until the Fall of 1970, when the warning against the use in children was published in the Physicians Desk Reference, Supplement C, 1970, we obtained promising results with nortriptyline HCL (Aventyl), a tricyclic compound commonly used as an antidepressant. Since there have been no previous reports concerning the use of nortriptyline for this purpose, we present our results on the use of this drug and advocate the further study of nortriptyline as a useful drug to control hyperactivity.

## Materials and Methods

A retrospective study of 118 patients, ranging in age from 2 to 15 years who received nortriptyline in doses of 20 to 75 mgs. daily, was done by a review of their medical records. Each patient was treated because of observed or reported hyperactive behavior manifested by extreme activity, distractibility, short attention span, emotional lability, temper outbursts and poor impulse control. Many of the patients were referred for other neurological problems such as convulsive disorders, mental retardation, or learning handicaps. Appropriate anticonvulsants were administered for the primary disorder as indicated. Abnormal neurological findings were present in most of the patients. The effect of nortriptyline was judged from the recorded observations of the parents, teachers, and examining physicians. This effect was subjectively rated and divided into three groups: improvement based upon a decrease in hyperactive symptomology, no improvement, where there was no change in behavior, and adverse reactions, where either hyperactive behavior symptomology increased or a side-effect such as excessive drowsiness caused the medication to be withdrawn. The patients received nortriptyline for periods ranging from one month to five years. Since bone marrow depression, including agranulocytosis, has been reported with the use of tricyclic antidepressants, each patient was advised to receive monthly white blood cell and differential white cell counts. The results of these blood counts when recorded in the charts were tabulated.

A similar retrospective study of 61 patients who received methylphenidate in a dose range from 10 to 40 mgs. per day for treatment of hyperactive behavior was also done. An overlap between the two groups occurred, as some patients received both nortriptyline and methylphenidate at different times, thus allowing comparison of the effects of both drugs on a single patient.

## Results

Of the 118 patients who were given nortriptyline, 65 (55%) showed improvement, 46

(39%) showed no improvement, and seven (6%) had adverse reactions. Most of the adverse reactions consisted of excessive drowsiness. There was one possible allergic reaction to the drug, consisting of nausea, vomiting and a rash which cleared after the drug was discontinued. Of 118 patients, 46 had interim white blood cell counts recorded; only one showed an abnormality, granulocytopenia (15% segmented cells), with a normal total white blood cell count of 5600 per cu.mm. The granulocyte count increased immediately after the cessation of nortriptyline. The patient had been taking the medication for one and a half years.

Of 61 patients who were given methylphenidate, 25 (41%) showed improvement, 26 (43%) showed no improvement, and 10 (16%) had adverse reactions. There was a statistically significant difference between the beneficial results of nortriptyline and methylphenidate administration ( $p < 0.05$ ).

Twenty-nine of 61 patients received methylphenidate, but no nortriptyline. Of this group, 15 (52%) showed improvement, 13 (45%) showed no improvement, and one (3%) had an adverse reaction. Thirty-two patients received both methylphenidate and nortriptyline at different times. Of these, 10 (31%) showed improvement, 13 (41%) showed no improvement and nine (28%) had adverse reactions with methylphenidate. The same 32 patients, however, had different results with nortriptyline. 19 (59%) showed improvement, 12 (38%) showed no improvement and one (3%) had an adverse reaction. There again was a statistically significant difference between the last two sets of results ( $p = 0.01$ ).

Twenty-eight of 32 patients received nortriptyline before methylphenidate. Of these, 13 patients had a better response with nortriptyline, seven had a better response with methylphenidate, and eight had an equal response with both drugs. Four patients received methylphenidate before nortriptyline. Of these patients, two had a better response with nortriptyline and two had the same response with either drug.



## Discussion

From the results of this study, it appears that nortriptyline possesses potential as a drug for use in the treatment of hyperactive behavior in children. The 55 percent improvement rate which was obtained with the use of nortriptyline is certainly lower than the 69 percent and the 84 percent improvement rates after use of dextroamphetamine and methylphenidate reported by Millichap (1968). Likewise, our 41 percent rate of improvement with the use of methylphenidate is lower than those previously stated rates. In addition, in the case of methylphenidate, few of the patients were given doses as high as the 40 mgs. per day reported by Millichap (1968). The rates of improvement obtained by others in the past may have been contributed to by the significant placebo effect reported. (Millichap, et al., 1968, Knights and Hinton, 1969). In the 32 patients who received both nortriptyline and methylphenidate, placebo effect is less likely and the 59 percent rate of improvement with nortriptyline in comparison with the 31 percent improvement rate with methylphenidate appears to be of some consequence. However, in an uncontrolled study, it is impossible to draw definitive conclusions from these figures.

Anorexia, irritability, and insomnia have been reported by Conners and Eisenberg (1963), Millichap (1968) and others as undesirable side effects of the amphetamines and methylphenidate. Methylphenidate is said to show fewer of these untoward effects than dextroamphetamine and Worrel and Bell (1971) gave this as the reason why it was regarded as the drug of choice. Nortriptyline did not appear to cause anorexia or insomnia in any of the patients to whom it was administered, and increased irritability was only manifested occasionally.

We also administered nortriptyline to patients who manifested nocturnal enuresis with good results. This use of nortriptyline, as well as its effectiveness in the control of this condition has been reported by Smith and Gonzales (1967) and Forsythe and Merrett (1969).

Because of its apparent effectiveness in controlling hyperactivity, its favorable comparison with methylphenidate, its apparent safety in children, as well as the relatively low incidence of side effects as a result of its administration, nortriptyline (Aventyl) is a promising therapeutic agent in the control of hyperactive behavior. We would, therefore, advocate controlled clinical trials to objectively assess its effectiveness and safety for behavior modification.

## Summary

One hundred and eighteen patients were treated with nortriptyline to alleviate hyperactive behavior, a use of this drug not previously reported, and the subsequent results were compared to the effects of methylphenidate in 61 patients in an uncontrolled, retrospective study of their medical records. The results revealed that a higher percentage of patients improved with nortriptyline than with methylphenidate. This difference in response appeared to be statistically significant. Thirty-two of these patients received both nortriptyline and methylphenidate at different times. In this subgroup, a higher percentage of patients improved with nortriptyline than with methylphenidate. This difference also appeared statistically significant. One patient of the 46 who had white blood cell counts regularly recorded showed some evidence of bone marrow depression. Nortriptyline shows promise as a therapeutic agent for control of hyperactive behavior in children.

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*Department of Neurology  
University of Virginia  
Charlottesville, Virginia 22901*

### **Tuberculosis Vaccine May Also Prevent Leukemia**

A research study by a Chicago team of scientists indicates that early vaccination with BCG tuberculosis vaccine may also protect children from leukemia. The study covers almost a quarter of a million infants born in Cook County Hospital, Chicago, over a period of five years ending in 1969. The unvaccinated group—172,986 infants—recorded six times the incidence of leukemia of the vaccinated group—54,414 infants. The newborns in the latter group were vaccinated with BCG at age of two to three days.

The researchers stop short of drawing firm conclusions, but they point out that the marked statistical difference in the two groups "suggests the value of the BCG vaccine in preventing leukemia in children."

The process involved has been well documented in laboratory animal studies—the

body's immune mechanism is triggered by the vaccine. This mechanism, which involves the body's natural resistance to disease, also can prevent other problems, including leukemia.

"Recent experimental studies make it reasonable to conclude that the immunogenic mechanism plays a dominant role in host resistance to neoplasia (cancer). It is this mechanism that probably accounts for the suppression of incipient cancer cells which are constantly developing in the human body.

"As long as this immunogenic surveillance is properly functioning, clinical cancer or leukemia is suppressed."

The study group includes Sol R. Rosenthal M.D., Ph.D., Ray G. Crispen, Ph.D., Margaret G. Thorne, Nancy Piekarski, Nijole Raisys and Philip G. Rettig, J.D.



# Hyperalimentation in a Community Children's Hospital

## An Eighteen Month Experience

GEORGE A. HARKINS, M.D.  
WILLIAM W. MORGAN, JR., M.D.  
Norfolk, Virginia

**The technique of extra-alimentary nutrition in the infant has been developed to the point that it is both safe and successful. A gain in weight with this method is usually seen in situations that would have produced life threatening malnutrition without it.**

**T**HE POTENTIAL MERIT of intravenous nutritional support in the pediatric patient was realized in 1962 when Sukarochana and coworkers at the Children's Hospital in Pittsburgh, produced positive nitrogen balance in the postoperative pediatric surgical patient by infusing a protein hydrolysate, high carbohydrate mixture.<sup>1</sup> Supplemental extra-alimentary nutrition has progressed since 1962 from an inexact science attempting to provide required body nutrients and reduce postoperative nitrogen loss to specific diets for specific diseases<sup>2</sup> and is capable of totally supporting life over long periods.<sup>3</sup>

Presented at the annual meeting of the Virginia Surgical Society, Hot Springs, April 28, 1972.

HARKINS, GEORGE A.: Chief, Division of Pediatric Surgery, Norfolk General Hospital, Norfolk, Virginia, and Director of Surgical Education, Children's Hospital of the King's Daughters.

MORGAN, WILLIAM W., Director, Crippled Children's Clinic, Pediatric Surgery. Address after September 1, 1972, Memorial Mission Hospital, 509 Biltmore Avenue, Asheville, North Carolina 28801.

In the pediatric patient silicone rubber tubing placed in an area of high venous mixing to prevent thrombosis of vessels caused by the high acidity and the high osmolality of the hyperalimentation solution, accurate roller pumps and a bacterial filter capable of preventing the smallest bacteria from entering the blood stream, all have contributed to the success of intravenous hyperalimentation, certainly a far step from the dextrose solutions given subcutaneously during the early 1930's.

An 18 month experience August, 1970-January, 1972, at the Children's Hospital of the King's Daughters' with 38 children having a variety of disorders and receiving intravenous nutrition both with and without concomitant oral alimentation is presented.

### Materials and Methods

The exact constituents and method of preparation of hyperalimentation solution by the Children's Hospital pharmacy is previously described.<sup>4,5</sup> The final mixture, however, contains 3.3% protein hydrolysate, 20% glucose, 50 mEq. KCl/l, 50 mEq. NaCl/l and daily allotments of MVIR 1½ cc,\* 10 cc calcium gluconate, 0.5 micrograms folic acid, 0.4 ml. 50% magnesium sulfate, 1 microgram Vitamin B<sub>12</sub>, 1 ml. Vitamin K<sub>1</sub>.\*\*

An IVACR\*\*\* Roller Pump necessary to force the solution through the 0.22 Micra membrane FilterR\*\*\*\* insures both an ac-

\* MVI Multivitamins, USV Pharmaceutical Corporation, Tuckahoe, N. Y.

\*\* Aqua-Mephyton, Merck-Sharp & Dohme, Westpoint, Pa.

\*\*\* IVAC Corporation, San Diego, California.

\*\*\*\* Millipore Corporation, Bedford, Mass.

curate rate of delivery at 6cc/kg/hr or less as well as final sterility of the solution. Only Silastic<sup>R</sup>\* catheters (3.5 or 5.0 French) were passed percutaneously, via either the internal jugular<sup>6,7</sup> or subclavian vein<sup>8</sup> or infrequently by direct surgical incision of the internal jugular vein<sup>9</sup> into the right atrium and exact position of the catheter tip confirmed either radiographically or electrocardiographically.<sup>10</sup> Constant nursing surveillance in the Intensive Care Unit with constant electrocardiographic monitoring to pick up any cardiac arrhythmias produced either by the catheter tip or the hyperosmolality and acidity of the infusate was done. Urinary sugar content was measured with each voided specimen and the hyperalimentation rate adjusted to keep urinary glucose 2+ or less (2% or less of administered glucose is lost in the urine at this urinary level).<sup>11,12</sup> In the majority of patients, Neomycin-Bacitracin Ointment<sup>R\*\*</sup> was placed about the catheter entrance to insure bacterial suppression.<sup>13</sup> Bacitracin 500 units/gm., Neomycin 5 mgm/gm., and Vioform 3%, a bacteriostatic and fungostatic preparation, was substituted when fungal overgrowth became apparent. Sterile dressing change, wound cleansing and ointment reapplication were done biweekly. A multiplicity of laboratory data were drawn biweekly, however, only serum electrolytes, serum protein, as reflected by total serum solids<sup>14,15</sup> and hematocrit were fruitful. Skin cultures taken at the catheter entrance, with simultaneous blood cultures withdrawn from the line as well as frequent throat, stool, urine and other indicated cultures were taken biweekly. Hourly serum glucose levels measured by placing a drop of serum on a Dextrostix<sup>R\*\*\*</sup> when instituting or tapering a run, guarded against the insulin rebound phenomenon.<sup>16</sup> No nutritional balance studies were attempted as both intes-

tinal losses and supplemental oral nutrition were variable.

In three patients, a premature infant, a three month old and a one year old, successive runs, using first a commercially prepared 5% protein/25% glucose solution\* followed by 3.3%/20% were compared. In each instance, a 14 day run with 5%/25% was followed, after a three day interval free from hyperalimentation, by a similar run using the lesser (3.3%/20%) solution. General condition of the patients was the same for these comparative runs.

Certain trace elements and lipids absent in the hyperalimentation mixture were provided by monthly transfusions of fresh blood (15-20 cc/kg/mo.). Maintaining a hematocrit above 40 allowed full utilization of protein for growth as opposed to obligatory correction of anemia, the first obligation of dietary protein.

## Results

Thirty-two children underwent 50 runs: newborn and infants (0-3 months), 31 runs; children (3-12 months), 12 runs; children (greater than one year), seven runs. Silastic catheters were passed via percutaneous punctures of the subclavian or internal jugular vein, 39 and nine times, respectively. Only ten direct surgical incisions of the internal jugular vein were required. Two complications during placement of catheters were cardiac arrhythmias with the initial infusion of the acidic, hyperosmotic solution. Withdrawing the catheters 1 to 2 cm. corrected both arrhythmias without further ado.

Runs lasted an average of 18 days (4-63 days). Average weight gain was 1% per day (0-2% per day) [calculated as the difference between terminal and beginning weight as a per cent of the beginning weight] (Fig. 2, Fig. 3). No patients lost weight. In all patients regardless of the indications for hyperalimentation or concomitant oral alimentation, approximately a 4% weight loss over the three to four days following cessation of

\* Dow Corning Company, Midland, Michigan.

\*\* Burroughs Wellcome Company, Research Triangle Park, North Carolina.

\*\*\* Ames Company, Division of Miles Laboratory, Elkhart, Indiana.

\* McGaw Laboratories, Glendale, California.



Over 200 cultures of the line blood concomitant with cultures from the skin surround-



ANTIBIOTICS

STAPH. EPID.	NG	NG	CANDID
STAPH. EPID.	NG	NG	CANDID
HP	HP	HP	HP
HP	HP	HP	HP
4	4	4	4

BACTEREMIA; HEMATOMYCOSIS  
IN HYPERALIMENTATION

CATHETER  
OUT  
CANDID

DAY OF HYPERALIMENTATION RUN

Fig. 2

VOLUME 100, FEBRUARY, 1973

The run was terminated for two reasons: electively 38, or secondary to bacteremia or hematomycosis, 12 (Fig. 2). Organisms responsible in these 12 cases are shown in Fig. 3.

Fig. 3. Agents cultured in the eleven runs discontinued because of Hematomycosis or Bacteremia.

Five of 32 patients died, none directly related to hyperalimentation. Respiratory failure (three patients), congestive heart failure (one patient) and exsanguination secondary to erosion by a tracheotomy tube into the aorta (one patient) were the mechanisms of death.

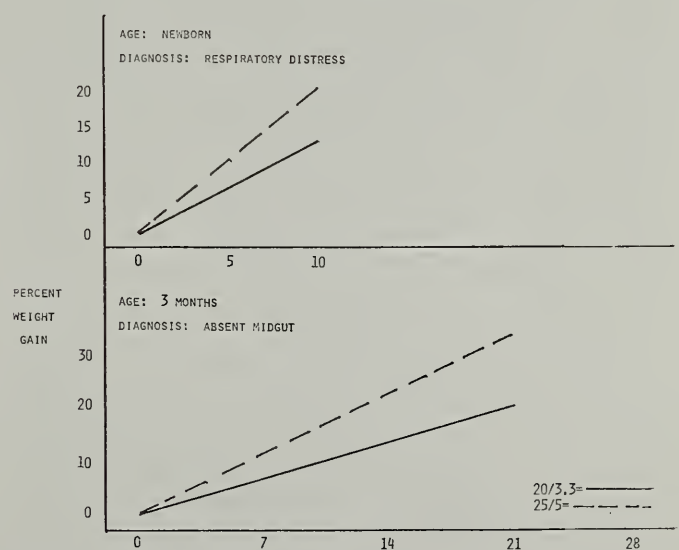


Fig. 4. Comparative weight gain curves in a newborn and three months old given 3.3% protein/20% glucose followed by 5% protein/25% glucose solutions. Percent gain is based on weight at start of run.

In the three patients having comparative runs of 3.3%/20% and 5%/25% the rate of growth was 10 to 15% greater with the 5%/25% mixture (Fig. 4). It should be

pointed out that the cost of the solution prepared in our pharmacy is \$6.00/1 as compared to \$11.00/1 for the commercially prepared 5%/25% solution. We personally did not feel that the added growth rate justified the additional expense.

## Discussion

Our results (1% weight gain per day) although uncontrolled by complex metabolic balance studies and skewed by concomitant oral intake concur with other more accurate studies that a normal and, in fact, excessive rate of growth can be expected, with hyperalimentation in the newborn and the infant.<sup>3,16,17,18,19</sup>

At the maximum rate, 6cc/kg/hr, 4 grams protein/kg/day and 100 calories/kg/day, far exceeding the requirements of even the newborn infants [2 grams protein per kilo per day, 100 calories per kilo per day (The Food and Nutrition Board, the National Research Council, 1968)], are given.

### PRINCIPAL DIAGNOSIS IN INFANTS AND CHILDREN REQUIRING INTRAVENOUS HYPERALIMENTATION

Tracheo-Esophageal Fistula  
Gastroesophageal Reflux  
Cleft Larynx  
Hirschsprung's Disease  
Colon Atresia  
Jejunal Atresia  
Diaphragmatic Hernia  
Esophageal Perforation  
Annular Pancreas  
Wilm's Tumor  
Prematurity  
Congenital Heart Disease  
Malignant Diarrhea  
Sclerema  
Mickety-Wilson Disease  
Hyaline Membrane Disease  
Ruptured Berry Aneurysm  
Encephalitis  
Short Gut Secondary Midgut Volvulus

Fig. 5.

Diagnoses of all patients are seen in Figure 5. Patients loosely fell into five groups, all deserving comment. Postoperative patients constituted the largest group. In addition to

the catabolic phase imposed by surgery on these generally premature infants adequate oral alimentation could not be reinstituted for seven to 10 days due to either the original disease process or to the surgical procedure. Realizing this, an intracardiac line was inserted at surgery and hyperalimentation begun immediately postoperatively as soon as fluid, electrolytes, and vascular volume was stabilized. Once oral alimentation sufficient to sustain growth was possible, intravenous supplementation was discontinued and the infant 15 to 20% heavier, as opposed to 15 to 20% lighter than his preop weight, thrived. This is perhaps the greatest contribution of hyperalimentation. We roughly estimate that 50% of these extremely premature children would not have survived the postoperative course without this supplemental nutrition. In older infants and children, hyperalimentation was given preoperatively to restore weight loss, at times simultaneously with diagnostic tests, and then continued postoperatively until satisfactory oral alimentation was resumed (Fig. 1).

Older infants with non-surgical disorders in which either oral alimentation was detrimental (malignant diarrhea), medical treatment paralyzed the bowel (radiotherapy, chemotherapy), or rapid growth was deemed necessary (extreme prematurity), constituted the second large group. For instance, the child with malignant diarrhea, unresponsive to the usual dietary management and a diagnostic enigma<sup>20,21</sup> is given hyperalimentation at hospitalization<sup>21</sup> and the hyperalimentation is continued until the cause of the diarrhea found and assuaged, usually a period of two to four weeks. We agree with Avery<sup>20</sup> and Sunshine<sup>21</sup> that all these patients surely would have died without intravenous hyperalimentation.

In respiratory distress blood is shunted from the intestinal tract with ileus, anorexia, regurgitation, and at times, aspiration of gavage feedings resulting. Four premature infants requiring mechanical respiratory support received hyperalimentation in place of gavage feedings. Although two prematures eventually died, their longevity (30 days) far exceeded



that expected and both surviving infants would unquestionably have expired without supplemental hyperalimentation. All four patients gained weight.

Several older children (10-12 years) with transient, reversible neurological disorders necessitating total mechanical respiratory assistance were given hyperalimentation. As in the premature multiple complications of tube feeding, in patients both comatose and with respiratory distress, encouraged substitution of hyperalimentation for nasogastric tube feedings. After two to three weeks of this combined therapy, all three children recovered completely. In these older children weight stability rather than active growth was desired, therefore, the rate of hyperalimentation administration was appropriately tapered.

A child who as a newborn lost all but two inches of jejunum and two inches of ileum secondary to mid-gut volvulus constitutes the final arbitrary group. Realizing that compensatory villae hypertrophy would occur over the ensuing months<sup>22</sup> oral hyperalimentation (Vivonex<sup>R</sup>\*) was supplemented by nine runs of intravenous hyperalimentation totaling 229 of 500 consecutive days. At 18 months table food was gradually substituted for Vivonex and at the present time, some two years following the original injury, the boy is within the 30th percentile for both height and weight. Emotionally and neurologically he is normal and, in fact, probably advanced due to the excessive maternal nursing attention. Following the final run, a venogram confirmed patency of the left superior caval system although silicone rubber catheter was in either the subclavian vein or internal jugular vein for 199 of 329 days, certainly a remarkable attribute to the nonreactivity of Silastic (Fig. 6).

In the newborn and especially the premature infant, two variations in management are necessary. Presumably, the premature and newborn infant have an immature liver, unable to handle the high protein infusion.<sup>23</sup> In

these babies, therefore, when initiating a run only 1.1% protein (half-strength) was given. This lesser protein concentration was combined with either 10% or 20% glucose

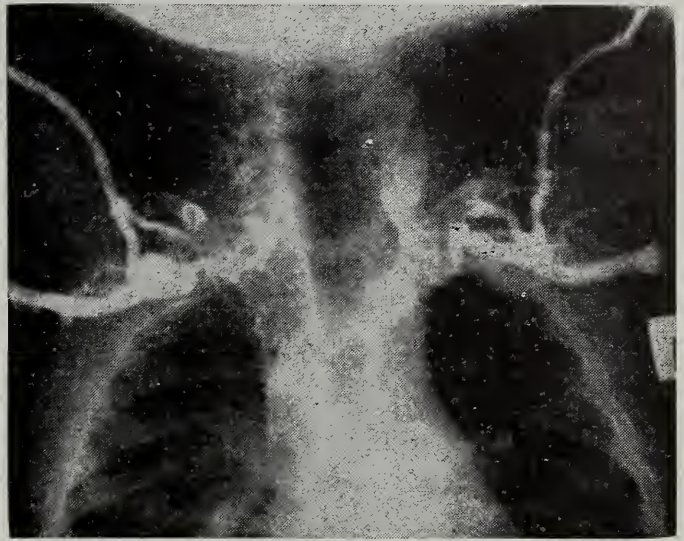


Fig 6. Bilateral venogram showing patency of both left internal jugular vein and left superior vena cava following catheterization for 199/329 days in a child maintained on intravenous and oral hyperalimentation for one and one-half years.

immaturity of the kidney as opposed to the liver not appearing to be a factor. The inaccuracy of ammonia levels on venous blood samples and the difficulty in obtaining arterial samples made careful investigation in these tiny infants of ammonia intoxication impractical. Clinically, however, none of the patients developed signs of ammonia intoxication when given this reduced protein load. Secondly, at 6 cc/kg/hr, water far in excess of daily requirements of the premature child (40-60cc/kg/day) is given. On occasion, especially in those children suffering respiratory distress with presumably increased pulmonary resistance, questionable congestive heart failure resulting from this excessive water load occurred. Diamox<sup>R</sup>\* or Mercuhydrin<sup>R</sup>\*\* given either daily or as needed, diuresed the infants leaving both glucose and protein for body utilization. These two precautions were unessential after one to two months of age,

\* Lederle Laboratories, Division of American Cyanamid Company, Pearl River, N. Y.

\*\* Lakeside Laboratories, Inc., Milwaukee, Wisconsin.

\* Eaton Laboratories, Division of Norwich Pharmacal Co., Norwich, N. Y.



and generally were not required in full term infants.

The non-elective indications for discontinuing the run were predictable. Fever, elevated white blood count, and positive blood cultures, never less than 10 days after instituting a run, would occur. Immediate removal of the line reversed this syndrome within six to eight hours. If, after symptom abatement, the catheter was needed further, it was inserted either in the opposite or same vein, without sequelae.

In contrast to reports by others we did not find that hematomycosis and bacteremia increased glycosuria or decreased weight gain.<sup>11,16,17,24</sup> Hematomycosis and bacteremia never developed into septicemia necessitating treatment. We did not have, as reported by others,<sup>24,25</sup> a high mortality secondary to sepsis. Nevertheless, we as others do appreciate the potential problem and concur that the major danger in hyperalimentation is sepsis. When considering the possible sites for contamination, the pharmacy must be excluded, as only 1/1000 bottles of hyperalimentation fluid was tainted. The microfilter further excludes the fluid itself as the source of either bacteremia or hematomycosis. One therefore must conclude that the patient's own organisms are the nidus for infection. Hosahal et al.<sup>26</sup> conclusively demonstrate the following sequence of events. After catheter placement in a large vein, a fibrin sheath rapidly encases the tube, and slowly increases in size until total occlusion of the vein may occur. The sheath then becomes colonized by organisms. Probably, recurrent bacterial or fungal showers originate from the fibrin sleeve, producing the febrile response seen after two weeks of a hyperalimentation run. Our data suggest that bacteria grow from the skin puncture site down along the catheter. Specifically, simultaneous skin and positive blood line cultures for *Staphylococcus epidermidis* taken within 48 hours of insertion of a catheter were found frequently. The use of Neomycin-Bacitracin ointment about the catheter bacteriologically sterilizes the skin.<sup>13</sup> Unfortunately, a bacteriocidal ointment promotes fungal over-

growth reaching significant levels beyond 10 days. Our skin and line blood cultures show no fungal growth prior to 10 days of a run, with a marked increase after 21 days. On the basis of our culture data we switched from the bacteriocidal ointment, Neomycin-Bacitracin, to a bacteriocidal and fungocidal material, Neomycin-Bacitracin-Vioform. Hematomycosis and positive skin cultures for fungus have now diminished although these runs are not included in this report. In summary, the sequence of events leading to hematomycosis or bacteremia and sepsis, if not promptly attended would appear to be: formation of a fibrin sleeve about the intravascular catheter which reaches sufficient size to support bacterial seeding at about 14 days; repression of skin bacteria by the antibiotic ointment initially with later overgrowth of skin fungus spreading along the catheter to infest the fibrin sleeve, or seeding of the fibrin sleeve by bacteremic showers from other areas of the body; bacteremia or hematomycosis originating from the sleeve producing the febrile response characteristically seen at 21 days of a run; and finally, frank sepsis.

In addition to the change to a bacteriocidal and fungocidal ointment other measures may decrease this problem. Specifically, the propensity to fibrin sleeve formation varies in different types of catheters. Teflon<sup>®</sup> because of the woven interstices and the Polyethylene encourage a significant sheath within 24 and 72 hours, respectively. Both types of catheters will be totally encased by fibrin within seven days and the superior vena cava may be totally occluded in 14 days.<sup>26</sup> On the other hand, Irving et al. have implanted silastic catheters in the inferior vena cava of mice and the inevitable sleeve which develops is insignificant even after six months.<sup>27</sup> This information coupled with our own bacteriologic data makes us conclude that only silastic catheters should be used and that these should be removed after 14 days, even if trouble free. With the existing popular techniques of direct sur-

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\* Deseret Pharmaceutical Company, Inc., Sandy, Utah.



gical incision and ligation of the internal jugular vein for catheter placement<sup>9,11,12,16,17,24</sup> fortnightly catheter change is inappropriate if prolonged administration of hyperalimentation is needed. We, however, now avoid this problem by using either the subclavian or internal jugular percutaneous punctures for catheter insertion. In this manner hyperalimentation supplementation without vein sacrifice may be done indefinitely. In a recent review by ourselves of 100 cases of percutaneous punctures in infants and children, there were no significant complications.<sup>28</sup> We feel, therefore, in view of the propensity of the existing materials available to promote catheter sheath formation and the tendency for these sheaths after 14 days of use to become infested with bacteria or fungus either growing down around the line or seeding from areas in the patient's own body, when compared to the relative safety of inserting a new silastic catheter via the subclavian or jugular route, that it is much safer to discontinue the run after two weeks and insert a new catheter on the contralateral side after two to three days. Our results prior to the development of this philosophy are exhibited in this paper and show a 20% instance of bacteremia or hematocytosis. Since this study we have discontinued every run after two weeks and used both bacteriocidal and fungocidal ointment about the catheter. In this new group of runs, not included in this paper, we have had neither bacteremia nor hematocytosis. A comparative study is now underway to confirm this finding. A search for a better catheter is being made and perhaps the electrically-coated-heparin-bonded catheter as described by Gott<sup>29</sup> will prevent fibrin sleeve formation and its attendant difficulties.

Excluding the above discussion, this series of runs was free of complications as described in the literature: osmotic dehydration, rebound hypoglycemia, significant sepsis, major venous thrombosis, etc.<sup>11,12,16,17,19,23,25</sup> Inadvertent catheter removal due to the slick Silastic, a problem described by Asche et al.,<sup>17</sup> has been solved by bonding catheter and skin sutures

with liquid Silastic (Silicone Adhesive AR\*) and weekly resuturing of the catheter.

## Conclusion

Thirty-eight infants and children at the Children's Hospital of the King's Daughters received 50 supplemental hyperalimentation runs. A weight gain of 1% per day occurred. There were no significant complications nor deaths resulting from hyperalimentation. We concluded that Silastic catheters, subclavian catheterization, fortnightly catheter change, and antibiotic-antifungal ointment will decrease the problem of hematocytosis and bacteremia, indication for discontinuing 12 of the 50 runs.

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# Management of Acute Sore Throat

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**A point system has been devised for differentiating streptococcus sore throat from viral sore throat on the basis of symptoms, physical findings, and blood count. While not a substitute for a well done throat culture it does achieve an accuracy of about 75% and can be most useful when laboratory facilities are lacking.**

**I**N THE EVALUATION and treatment of the acute sore throat, the differentiation of streptococcal infection from other causes of pharyngitis is a most common and important challenge facing the clinician. It is well known that etiologic differentiation on clinical grounds alone is very unreliable and that culture confirmation is most desirable. There are, however, a number of situations in which this may not be feasible and one must rely on clinical judgment and perhaps a complete blood count as to whether to administer or withhold antibiotics. Indeed, there is evidence indicating that the throat culture as done in the private office is subject to a high rate of false negatives.<sup>5</sup> Even in skilled hands, the single throat culture may yield as high as a five to fifteen percent rate of false negatives.<sup>2,7</sup> In view of this knowledge, it behooves us not to forsake all clinical attempts at diagnosis in favor of the throat culture.

The symptoms and signs of typical streptococcal pharyngitis versus those of the usual viral sore throat are well known. How much

diagnostic weight should be assigned to each symptom or sign, or which combination of symptoms, signs or laboratory data is indicative of either streptococcal or viral pharyngitis is a somewhat overlooked subject. The present study was undertaken in an attempt to put this aspect of the diagnostics into perspective and, in addition, to seek a more or less standard approach to the management of sore throat with or without the availability of culture facilities.

## Methods and Results

The study was conducted at a small Alaskan military facility serving about 2,000 active duty and retired military personnel and their dependents.

Initially, a survey sheet was formulated with many symptoms and signs of either streptococcal or viral pharyngitis and subsequently completed on all patients who complained of a "sore throat" during the period 1 November 1970 to 30 April 1971 (Fig. 1). After completing the history, the patient saw one of two physicians who did a physical examination. A routine complete blood count and throat culture were then obtained.

For the six months period, there were 195 complaints of "sore throat". Forty of these were culture confirmed streptococcal infection, 154 were presumed to be viral (negative culture), and one was infectious mononucleosis. For further study purposes, the case of mononucleosis was excluded.

The results of the survey were studied to discern a pattern of presentation of the two illnesses or to find factors favoring one or the other diagnosis. The asterisked factors in Figure 1 are those which showed a ten percent or less difference between the incidence in streptococcal infection and viral infection and were considered to be of no significance for differentiation purposes. The factors in Figure 2

were found to have greater than ten percent difference and were felt to be of predictive assigned a two point value. The individual

FIGURE 1

History:

\*Date\_\_\_\_\_Age\_\_\_\_\_

\*Sex\_\_\_\_\_

Have you ever had a strep throat?

\*How long after you got sick did your throat get sore?\_\_\_\_\_

hours

During your illness, have you had:

Yes

No

Fever

\*Chills

Headache

\*Nausea

\*Vomiting

\*Diarrhea

\*Abdominal pain

\*Muscle and joint pain

\*Malaise (the blahs)

Loss of appetite

Cough

Hoarseness

Loss of voice

\*Chest pain

\*Earache

\*Bloody nose

Runny nose

\*Stuffy nose

Physical Examination:

Pulse\_\_\_\_\_

Temperature\_\_\_\_\_

Color of pharynx: Pale\_\_\_\_\_Red\_\_\_\_\_

Yes

No

\*Prominent papillae

\*Coated tongue

Pharyngeal edema

Exudate

Cryptic tonsils

\*Petechiae on palate

Enlarged neck nodes

Tender neck nodes

Laboratory Data:

WBC count

% PMN

\*% Bands

% Lymphs

\*% Monos

\*% Eos

\*% Baso

Throat culture results\_\_\_\_\_

\*Denotes factors having less than 10% difference between Beta streptococcal pharyngitis and viral pharyngitis and were considered insignificant for purposes of differentiating the two illnesses.

significance. Based on the percent difference, survey sheets were again reviewed and each each of these factors was assigned a point value. factor having a positive correlation with

FIGURE 2

	Present in ____% of Beta Strep Cases	Present in ____% of Viral Cases	% Difference Between Viral and B Strep	No. of Assigned Points
History:				
Fever	80	29	51	+5
Hoarseness	28	60	32	-3
Rhinorrhea	35	62	27	-2
Age less than 10	50	25	25	+2
Age greater than 20	20	43	23	-2
Anorexia	68	47	21	+2
Headache	78	62	16	+1
Cough	50	66	16	-1
Loss of voice	0	13	13	-1
Past Hx Beta Strep	43	32	11	+1
Physical Examination:				
Pharyngeal edema	63	21	42	+4
Cryptic tonsils	58	17	41	+4
Fever over 100° (101° R)	58	27	31	+3
Pulse over 80/min.	90	63	27	+2
Exudate	35	10	25	+2
Red pharynx	78	53	25	+2
Pale pharynx	22	47	25	-2
Enlarged neck nodes	53	39	14	+1
Tender neck nodes	38	24	14	+1
Laboratory Data:				
WBC over 10,000	76	34	42	+4
PMN over 60%	83	55	28	+2
Lymph under 25%	32	67	35	-3

NOTE: + signifies correlation with Beta streptococcal infection.  
- signifies correlation with viral infection.

For example, anorexia was found in 68 percent of streptococcal cases and in only 47 percent streptococcal infection was awarded its points if the factor was present; negatively correlated



factors received points if they were absent. A survey completely favoring streptococcal infection scored 50 points. The lower the score, the less likelihood of the patient having strep-

practice situation was supposed in which a physician had to rely solely on his clinical judgment as to whether or not to administer antibiotics. From 1 November 1971 to 29

FIGURE 3

POINT RANGES						
	0-9	10-19	20-29	30-39	40-50	Totals
Beta strep						
Number of cases	.....	1	14	12	13	40
Percentage of cases	.....	2%	35%	30%	33%	100%
Viral						
Number of cases	31	72	29	17	5	154
Percentage of cases	20%	47%	19%	11%	3%	100%

tococcal pharyngitis. Grouping of the individual survey scores is seen in Figure 3. As would be expected, there was no score separating the streptococcal from the viral infections.

FIGURE 4

	Yes	No	Points
Section I:			
Are you 10 years old or younger	x		2
Are you 20 years old or older?		x	2
Have you ever had a strep throat?	x		1
During your present illness, have you			
Had a fever	x		5
Been hoarse		x	3
Had a runny nose		x	2
Lost your appetite	x		2
Had a headache	x		1
Had a cough		x	1
Lost your voice		x	1
Section II:			
Pharyngeal edema	x		4
Cryptic tonsils	x		4
Fever over 100° (101° Rectally)	x		3
Pulse over 80/minute	x		2
Exudate	x		2
Pharyngeal hyperemia	x		4
Enlarged neck nodes	x		1
Tender neck nodes	x		1
Section III:			
WBC over 10,000	x		4
PMN over 60%	x		2
Lymphs under 25%	x		3
			50

However, it was found that for therapeutic purposes, a dividing score of 20 was significant. Ninety-eight percent of all streptococcal cases scored 20 points or greater and 67 percent of all viral cases scored under 20 points. With this knowledge, a second survey was devised using a yes-no format so that a cover sheet could be used to grade the case (Fig. 4.). A

February 1972 thirty random cases of "sore throat" were treated hypothetically using this system, though in fact each case was managed in the generally accepted manner. Three general classes of results and their management were chosen:

- Class 1—Under 20 points. Probably not streptococcal infection. Withhold antibiotics.
- Class 2—20 to 29 points. Equivocal streptococcal infection. Administer antibiotics to be safe.
- Class 3—30 to 50 points. Probably streptococcal infection. Definitely administer antibiotics.

The results of this hypothetical management are summarized in Figure 5.

Discussion

Once again is shown the necessity of a well performed throat culture in the management of the acute sore throat. Diagnosis on clinical grounds alone is at best only 75 percent accurate,<sup>2,3,4</sup> although, using a variant of the point scheme, the authors achieved an overall accuracy of 80 percent in the last thirty patients. In situations where culture is not feasible, however, it is necessary that the clinician have a firm knowledge of the priorities of the various symptoms and signs of streptococcal and viral illness. Though one need not go so

far as to use a rigid point scheme, it is felt that erring on the side of overtreatment is preferable to the risk of developing post-streptococcal complications by withholding antibiotics in dubious cases. Referring to Figure 5, it

ter antibiotics regardless of what the culture eventually grows. In using the point scheme, treat anyone scoring 40 points or over, as only three percent of viral sore throats fall within this range (Fig. 3). If clinical findings are not

FIGURE 5

SUMMARY OF 30 PATIENTS WITH SORE THROAT HYPOTHETICALLY TREATED USING THE POINT SYSTEM			
	Total Rx'ed	Treated Correctly	Treated Incorrectly
Number of strep cases	9	8 Antibiotics given	1 No antibiotics given
Number of viral cases	21	9 No antibiotics given	12 Antibiotics given
Totals	30	17	13

can be seen that using the point scheme would have resulted in 12 culture negative cases being treated with antibiotics; however, only one culture confirmed streptococcal pharyngitis would have been left untreated. In deference to the method, three of the twelve culture negative "viral" cases scored 40 points and over and were so strongly felt to have streptococcal illness that they were given antibiotics despite the lack of streptococcus on the plate.

Whatever guidelines are used to diagnose streptococcal pharyngitis, it must be remembered that this organism is the etiologic agent in a significant percentage of all sore throats. It was the causative agent in 21 percent of cases in this study and others have reported an incidence of from ten percent to 40 percent.<sup>6</sup> The common diagnostic symptoms, signs, and blood findings previously enumerated should be kept in mind, especially if one has no culture facilities to fall back on. Even if facilities are available, it should be remembered that a single culture may miss 15 percent of positive cases. Considering these factors, the authors propose the following management guidelines in handling the acute sore throat:

1) With culture facilities available:

Attempt the most accurate clinical diagnosis possible using whatever guidelines have proven useful. If the clinical picture is very suggestive of streptococcal disease, adminis-

trously suggestive, await culture results before administering antibiotics. Delay in instituting definitive therapy is not detrimental as long as it is begun within a week.<sup>1</sup>

2) Without culture facilities available:

Again attempt accurate diagnosis. Administer antibiotics to cases even slightly suggestive of streptococcal infection. Keep in mind that hoarseness, cough, rhinorrhea, and loss of voice mediate strongly against streptococcal infection. Using the point system, one should administer antibiotics to any case scoring 20 points or greater.

Summary

A therapeutic management scheme for acute sore throat has been devised on the basis of an analysis of the symptoms, signs, complete blood counts, and culture results of 195 patients complaining of "sore throat". The scheme involves a scoring system of zero to 50 points, the higher the score the greater the likelihood of a case culturing Beta streptococcus. If culture facilities are not available, anyone scoring 20 points or over should be treated with antibiotics. If culture facilities are available, one should remember that there is a five to 15 percent rate of false negatives and treat anyone scoring over 40 points regardless of culture results. If the scheme is not used, one should keep in mind the various factors mediating for and against streptococcal infection



and, using this in conjunction with a throat culture, aim therapy to cover the possible Beta streptococcus even if some viral infections will be treated unnecessarily.

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Electric Shavers May Interfere with Pacemakers

If you're wearing an *external* pacemaker to regulate heart beat, an electric shaver might possibly be dangerous, even deadly, warns a communication in the December 25th issue of the *Journal of the American Medical Association*.

The *implanted* pacemaker, placed by surgery under the skin of the chest and powered by built-in, long-acting batteries, offers very little if any danger. But the danger from the *external* pacemaker, powered by batteries carried outside the body with tiny wires leading to the heart, may be substantially greater, says Seymour Furman, M.D., of Montefiore Hospital Medical Center, Bronx, N.Y.

The problem comes in the electrical activity of the shaver, which may interfere with the operation of the pacemaker. This is especially true if the shaver is not properly maintained and does not run smoothly. An even greater danger is that the insulation on the wires leading from the battery should wear thin. Leak-

age from a defective shaver possibly could introduce a 120-volt current directly into the heart.

Robert L. Elder, Sc.D., of the Bureau of Radiological Health of the Food and Drug Administration, Rockville, Md., pointed out that both types of pacemakers have filters that decrease exposure to outside electrical interference.

"If the shaver is in good electrical condition, the signal it emits will be fairly uniform, then the filters most probably will be adequate."

"If the razor is electrically 'noisy,' the transmitted signal is stronger and no longer uniform, and may pass through the filters, causing pacemaker dysfunction."

Dr. Elder points out that electrical interferences are rare, and serious consequences are even more rare. He suggests that the patient with a new pacemaker try out his electric shaver before leaving the hospital.

# Radioisotopic Brain Scanning

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JOHN T. MYLES, M.D.  
Newport News, Virginia

**Brain scanning is now in general use and is recognized as a valuable diagnostic method. It is not a substitute, however, for a careful neurological workup.**

**T**HE PRODUCTION OF TRACER and therapeutic radioisotopes has been heralded as one of the great peacetime contributions of the uranium chain-reacting pile. It has allowed the wide clinical application of radiopharmaceuticals, both for the diagnosis and, to a more limited extent, for the therapy of innumerable pathological conditions.

## History

Although neuroradiological methods are still the most valuable diagnostic tools available to us, the risk inherent in their use has expanded the search for safer and less traumatic means to demonstrate neurological lesions. Furthermore, it is desirable and preferable, whenever possible, to appreciate intracranial pathological processes, such as tumors, abscesses, hematomas, etc., in a more direct way, rather than relying on abnormal vascular patterns, vascular displacements, filling defects, and/or shifts of the ventricular cavities, as demonstrated by arteriography and/or by pneumo-ventriculography. It is in this context that Moore and coworkers made a pioneering contribution to neurological diagnosis.<sup>1,2,3</sup> They demonstrated that sodium fluorescein, injected intravenously, had a much greater affinity for tumor tissues than for the normal brain. This work subsequently led to the idea of tagging a radioactive compound, such as I-131, to a fluorescent substance (I-131

diodofluorescein), which could be detected through an intact calvarium by using a Geiger-Mueller tube as a counting device. Tremendous advances have been made in the technology of the detecting equipment since then. Now very highly sophisticated radionuclide detectors have been developed. They will automatically survey (scan) different areas of the head and spine and record normal and abnormal radioactivity by a photographic method (photoscanning—Bender-1957) (44), and/or by graphic method, as well. During the last few years, "gamma" cameras have become available. They are much more useful, especially in comatose or poorly cooperative patients, due to greater flexibility in positioning and to the speed with which the radioisotopic images can be obtained.

## Rationale

The differential ratio of concentration of the radioactive isotope between the lesion and the normal brain is defined as "uptake ratio". This is predominantly influenced by the blood-brain barrier, which is peculiar to the central nervous system and can be defined as a selective permeability to various substances injected systematically. Some will penetrate this barrier and diffuse within the brain parenchyma, and others will not. The blood-brain barrier phenomenon,<sup>6</sup> which appears to be a rate phenomenon rather than all-or-none reaction, occurs at different levels of the CNS:

- (1) At the level of the endothelial lining of the intracerebral vessels, in close contact with the parenchyma of the CNS.
- (2) The astrocytic membranes, which intimately surround the brain and cord capillaries without demonstrable extra or inter-cellular spaces or substances,



form a water-ion compartment, which plays an important role in the selective passages of substances between the brain and the vascular system and vice versa.

- (3) At the level of the epithelial linings of the choroid plexus.<sup>7</sup>

The normal function of the blood brain barrier can be interfered with by the action of mechanical, thermal, chemical, toxic and infectious noxae. Tumors, hemorrhages and demyelinating diseases also produce disruption of this barrier. When the breakdown occurs, substances which ordinarily are unable to pass through the blood brain barrier penetrate it. The degree of the breakdown will markedly influence the uptake ratio of radioactive substances, which, under these abnormal circumstances, will penetrate the "brain lesion" with greater selectivity than the brain itself.

Other factors which will influence the uptake ratio must be taken into account:<sup>4</sup>

- (1) The isotope used.
- (2) Peculiar features of the lesion under scrutiny.
  - (A) Site (intra or extra-cerebral) of the lesion.
  - (B) Vascularity.
  - (C) Specific cytological uptake.
  - (D) Degree of differentiation of the tumoral lesions.
  - (E) Cellularity.
  - (F) Rate of growth.

Clinically, lesions which are richly vascularized, more cellular and, in cases of tumors, less differentiated and more rapidly growing, have a much higher uptake ratio than lesions which are not very vascular, are less cellular, and are slow growing.

### **Radiopharmaceuticals**

The search for more suitable and more lesion-selective radiopharmaceuticals has been proceeding *pari passu* with the technological advances made in the scanning and recording instrumentation. The relative merits of the

various radioactive tracers are being continuously explored in many centers all over the world. The "ideal tracer" is that which is selectively taken up by tumors or by abnormal tissues and not at all, or to a very limited amount, by the normal brain tissue. However, for the time being, we have to be satisfied by using compounds which show only some degree of affinity for abnormal tissues. There is hope, nevertheless, that in the future, more selective radioactive substances will be available.<sup>4,5</sup>

In considering the multiple radioisotopes available for a conventional brain scan, one must remember that each radioisotope has its own "half-life", i.e., the time in which a given radioisotope will "decay" to one-half of its original activity. Thus, the application of radionuclides is limited by the availability of these short-lived isotopes in the clinical setting of a general hospital. Fortunately, the rapid delivery of these pharmaceuticals from centralized sites by air is now generally available. Furthermore, the most frequently used isotope today, Tc 99m Pertechnetate, can be generated in any hospital with relatively minor efforts and with limited equipment. At the present time, we use this radioisotope for most of our routine scans.<sup>8</sup>

Considering the radiation hazards of the various radioactive isotopes, Tc 99m Pertechnetate is the most suitable one, especially for the pediatric patient, due to its short half life of six hours. Previous administration of oral potassium perchlorate (200 to 800 mgm.) reduces the uptake by the choroid plexus, thus eliminating a source of possible confusion in the interpretation of the scans.

In certain instances, especially when we suspect the presence of a deep-seated brain tumor, we still use Neohydrin-Hg 203, which was first introduced by Blau and Bender in 1960.<sup>12</sup> Its half life is of forty-seven days. The target organ is the kidney, thus the use of intramuscular, unlabeled mercurhydrin twelve hours before the test reduces the radiation dose to the kidney by a factor of two-thirds. Even safer is Neohydrin Hg. 197, which was intro-

duced by Sodee in 1963. With its much shorter half life of 2.7 days, it reduces the renal radiation dose to one-eighth.

Brain scanning, although often employed as a screening procedure, yields information which cannot always be obtained by the usual neuroradiological techniques. The advantages of radioactive localization are:<sup>4</sup>

- (1) Small lesions not demonstrable by other radiological methods can be detected and accurately localized by brain scanning.
- (2) Uncertain radiological findings can be "reinforced" or confirmed by the use of radioactive isotopes.
- (3) Multiple lesions which can easily escape recognition may be easily picked up.
- (4) The actual size of certain lesions may be more accurately estimated with scanning than with other methods.
- (5) Radioactive encephalography is relatively innocuous, causes no discomfort to the patient, and now can be very rapidly performed even in uncooperative and very ill patients.

### Technique

(1) <sup>99m</sup> Pertechnetate: The patient is prepared by receiving an oral dose of 0.2 to 0.8 gm. of Potassium Perchlorate, shortly before the intravenous administration of the <sup>99m</sup> Tc. This blocks the uptake of the isotope by the choroid plexus, thyroid, and salivary glands. The average IV dose is of 5 to 10 millicuries, and the scan is performed after fifteen to thirty minutes or later.

This isotope can also be administered orally, provided that the patient is kept in a fasting state for at least six hours. The average oral dose is 10 millicuries. The scans are performed two to three hours later.

(2) <sup>197</sup> Hg-Chlormerodrin: One cc. of unlabeled Neohydrin is given intramuscularly two to four hours prior to the scan. An average of 900 microcuries of the isotope is then given intravenously. The scan is carried out three hours later.

(3) <sup>131</sup> I-RIHSA is at times also used for conventional brain scanning. The patient is prepared with four doses of five drops each of Lugol's solution by mouth, given the day prior to injection of the isotope. The average adult dose is 375 microcuries. The physical half life of this isotope is of 8.1 days. The optimal time for scanning is twenty-four hours after the intravenous administration of the isotope.

We firmly believe that since radioisotopic brain scanning is considered as a complementary procedure in neurological diagnosis, the brain scan should always be preceded by a thorough neurological examination and by plain skull x-rays. Furthermore, in many cases it is advisable to obtain an electroencephalogram, as well. Adopting "routine" scanning techniques or methods is not advisable for the diagnostic accuracy of this procedure can be greatly enhanced by utilizing clinically gathered information. While the routine static scanning method consists in obtaining AP, PA, right and left lateral views, in certain instances, it may be helpful to obtain a vertex or an orbital view as well. In the isotopic investigation of brain tumors or cerebral infarcts, it is of great help to obtain "delayed" scans and at times to repeat the scan in one week or ten days.<sup>14,15,16</sup> The delayed scan technique is particularly useful in detecting brain metastases in which the nuclide concentration is greater several hours following the injection of the radiopharmaceutical. Thus, a patient suspected of having cerebral metastases should be reexamined three to four hours after the initial study.<sup>16,17</sup>

As mentioned previously, when a deep-seated tumor is suspected, it is advisable to repeat the scan using either <sup>197</sup> or <sup>203</sup> Hg-Chlormerodrin.

If a gamma camera is available, a "dynamic" study (nuclide angiography) can be performed. This particular method is of great help in cases of vascular occlusions, intracranial arteriovenous malformations and in certain cases of intracranial tumors. The isotope is injected either intravenously or directly into the carotid artery.<sup>18,19</sup>



## Interpretation of the Scans

Detailed description of the normal radioisotopic brain anatomy is beyond the scope of this paper. It is clear that the physician ordering the scan desires additional information upon which to decide:

- (1) Whether neurological or neurosurgical consultation should be obtained.
- (2) Whether additional tests (EEG, arteriography, and PEG, or ventriculography) are indicated.

A brain scan is reported as being "equivocal" or "suspicious" if deviations from normal are identified. Great anatomical variability will clearly result in some "false positive" scans. Clinical judgment is then required to overcome the impasse. Instead, if an abnormality can be

early removal and preservation of neurological function. Intracranial neoplasms generally exhibit an area of focal increase of radioisotopic uptake. Experience has shown that a high degree of accuracy is shown in meningiomas, glioblastomas, and cerebral metastases.<sup>4,5,8,9,10,11,12,13,20,21,22,25,26</sup> The degree of accumulation of the tracer within the tumor mass gives us a fair indication as to the exact location of the mass, its extent in the various planes of the brain, and, not infrequently, of the type of tumor present (Figs. 1-a and 1-b). The appearance of a central area of decreased activity within a localized area of abnormally high uptake, though uncommon, does suggest the presence of a central area of cystic degeneration, necrosis, or hemorrhage.<sup>23</sup> Deeply infiltrating tumors and more differentiated

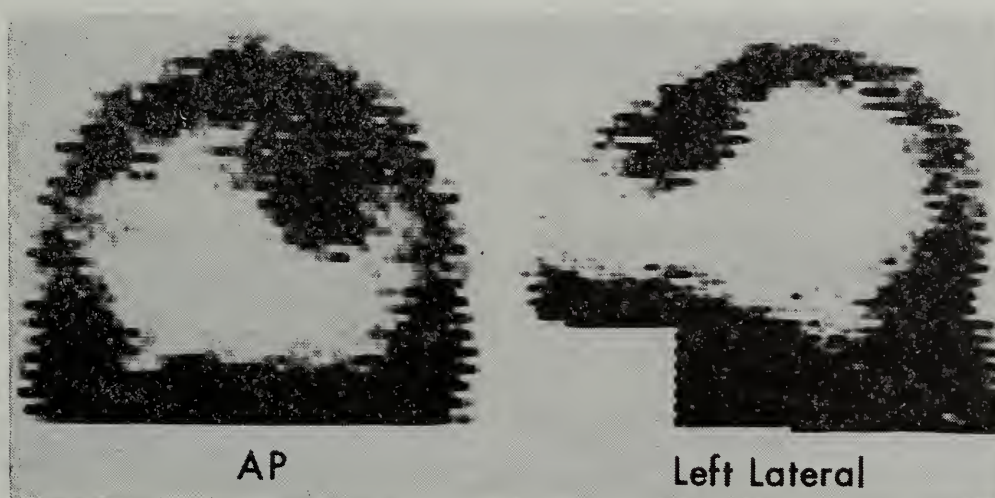


Fig. 1-A. AP and left lateral views showing a round area of excessive concentration of isotopic activity in the posterior frontal-anterior parietal, parasagittal region of the left brain convexity. The abnormal uptake is well circumscribed and dense, typical of that seen in meningiomas. (Diagnosis: Meningotheliomatous meningioma).

identified in at least two different views, then the scans are reported as being definitely "abnormal".

"False negative" scans do occur. In these patients, other neuroradiological investigations will, in most cases, localize the lesions accurately.

## Intracranial Tumors

Of all intracranial lesions, brain tumors are certainly the most important ones to detect at the earliest possible time, thus making possible

astrocytomas give variable results in terms of accuracy.

Intra or para-sellar tumors are frequently missed unless there is a fairly large suprasellar extension of the tumor mass.

The diagnostic accuracy of posterior fossa neoplasms is not as high as for supratentorial tumors; however, if particular attention is paid to the display of the posterior fossae, then the accuracy rises favorably.

While well-differentiated gliomas and lesions near the base of the skull and posterior



fossa continue to pose difficult diagnostic problems, one promising solution seems to be "section isotope scanning," or "tomography" as proposed by Kuhl and Edwards.<sup>24</sup> This method, very similar to that utilized for the conventional tomographic radiographic diagnosis, will undoubtedly help the radiological and the neurological diagnosticians in solving these enigmas.

making evaluation of the intracranial contents either very difficult or impossible. Using different scan projections, and with thorough knowledge of the clinical findings in each individual case, it is still possible to utilize brain scanning effectively in these patients. Cerebral contusions, lacerations, and hematomas, as well as surface hematomas (subdural or epidural), will be defined as areas, more or less

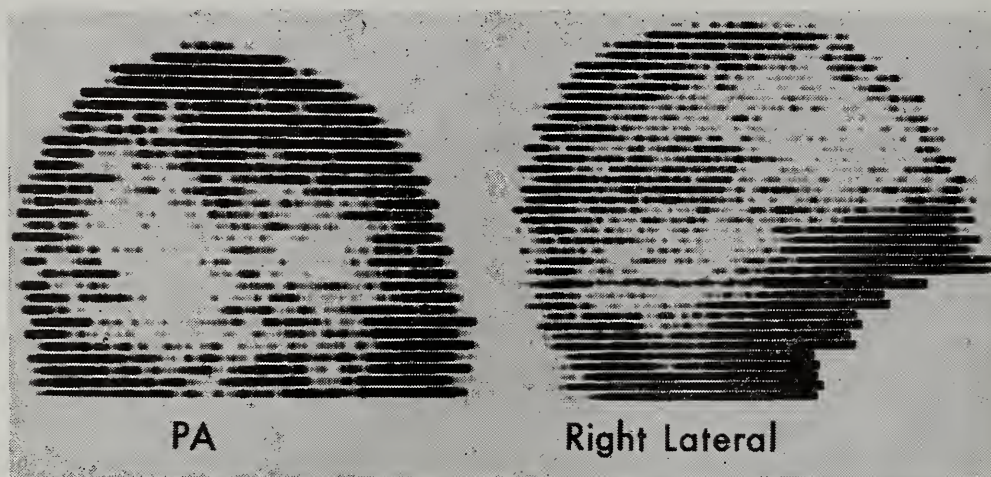


Fig. 1-B. PA and right lateral scans demonstrating a less dense and less defined area of increased uptake in the right parietal lobe, typical of infiltrating gliomatous tumors. (Diagnosis: Grade II Astrocytoma).

In conclusion, one may say that while radioisotopic brain scanning will not reveal all intracranial tumors, nevertheless a significant number of them, in the neighborhood of 80 to 90 percent, will display a positive scan. If the clinical picture suggests the possibility that the patients may be suffering from a brain tumor, this possibility should be thoroughly explored. "One must never be content to let the matter rest simply because the brain scan is negative."<sup>20</sup> Finally, if all patients suspected to have cerebral neoplasms are scanned, both shortly after the intravenous injection of <sup>99m</sup>Tc and again three or four hours later, the detectability of brain tumors by this method will be significantly improved. (From 80 percent to 93 percent in one series.)<sup>17,45</sup>

### Traumatic Cranial Lesions

The use of the conventional brain scan in the acute head trauma patient is greatly hindered by the fact that scalp contusions or hematomas, with or without skull fractures, will "pick up" the radioactive tracer, thus

focal, of increased uptake.<sup>25,26</sup> The subdural hematomas, especially of the chronic variety, will be demonstrated by a crescentic area of

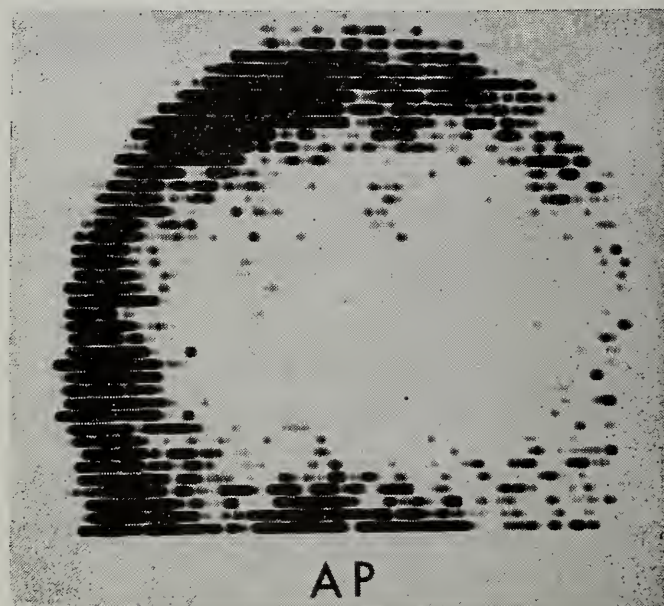


Fig. 2. Dense, crescentic uptake over the right cerebral convexity, pathognomonic of a chronic subdural hematoma.

increased uptake over one or both convexities of the brain (Fig. 2). Conventional brain scanning in subdural hematomas remains essentially



a screening test.<sup>27</sup> False negative scans are reported in about 20 percent of the cases. However, it must be remembered that the diagnostic accuracy of the conventional brain scan depends a great deal upon the age of the hematoma. In older lesions, an accuracy of 91 percent has been reported. The presence of a well-developed subdural membrane seems to be the critical element in the production of a positive scan.<sup>27,28,29,30</sup>

It must be remembered that the conventional brain scan is of lesser value in following patients who have undergone any kind of intracranial surgical procedure. Thus, after surgical evacuation of a subdural or intracerebral hematoma (and the same line of reasoning would apply to any kind of intracranial procedure), scans obtained later will continue to show focal areas of uptake at the operative site, at least for four to five years, and for as long as twenty-two years after craniotomy.<sup>22</sup> Angiography still remains the most important, single diagnostic test in these cases.

days to a few weeks, a repeat scan will show a significant area of increased uptake, in the distribution of the arterial channel involved, in about 75 percent of the cases. (Fig. 3) Thus, a change in appearance of the lesions, (i.e. from a negative to a positive scan) during a period of about ten days, is to be considered diagnostic of a cerebral infarction. This is a great differential diagnostic point which helps to distinguish these lesions from an intracranial neoplasm, which will not show any significant change in its isotopic image during a similar period of time.<sup>14,15</sup> A changing isotopic pattern after the second week of the infarction seems to give useful indication as to prognosis; so that, if a third study is carried out three or four weeks after the onset of symptoms, increasing scan density would indicate prolonged morbidity and poor functional recovery.<sup>14,15,31</sup>

Usher and Quinn<sup>15</sup> suggested that the scan be performed as soon as possible after the onset of symptoms, as a baseline, seven to ten days

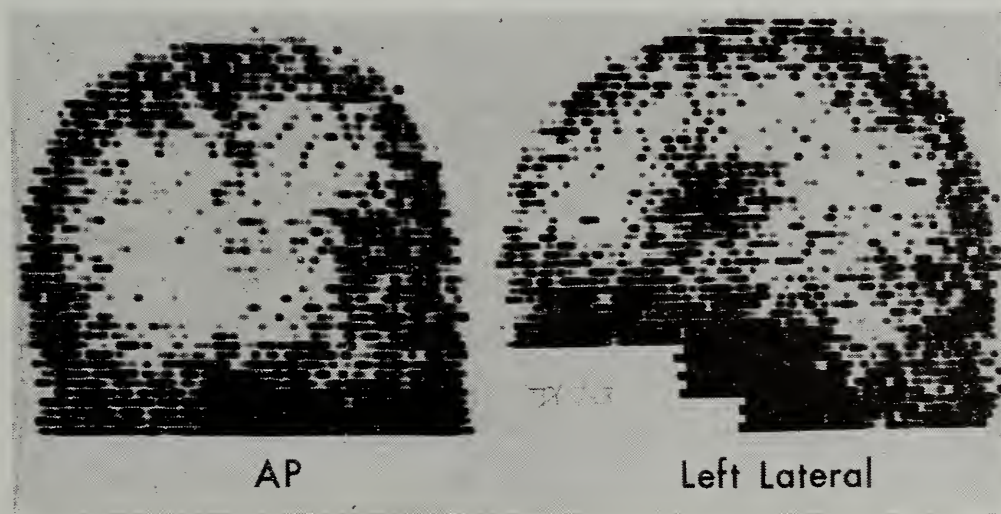


Fig. 3. Fairly dense and wedge-shaped abnormality in the distribution of the left middle cerebral artery. (Diagnosis: Cerebral Infarct, approximately two weeks old. A scan obtained ten days earlier had been negative).

### Cerebrovascular Disease

The role of radioisotopic scanning in the diagnosis of cerebrovascular disease has definitely increased during the last few years. It has become clear that if a brain scan is carried out within forty-eight hours of a completed stroke, only very few positive scans will be found (less than 20 percent). Within several

later for diagnosis, and three to four weeks later for prognosis.

Intracerebral hematomas, secondary to hypertension, arteriosclerosis, ruptured aneurysms, or arteriovenous malformations, trauma, vascular tumors, or blood dyscrasias, are frequently positive sooner than the scan in ischemic lesions.<sup>32</sup>



Other vascular lesions, such as arteriovenous malformations or aneurysms can be appreciated by brain scanning, although one must admit that arteriography cannot be matched in its accurate and detailed demonstration of these anomalies. Nevertheless, large aneurysms, especially such as one seen to arise from the internal carotid arteries, may on occasions be outlined by brain scanning as well circumscribed areas of uptake at the base of the skull and at, or close to, the midline.<sup>4,35</sup>

Arteriovenous malformations can be detected fairly accurately in most cases (Fig. 4).

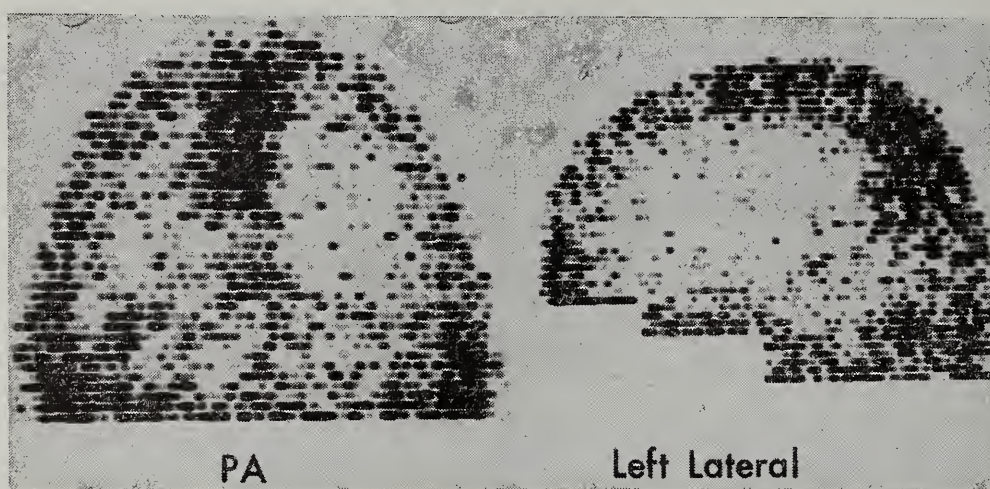


Fig. 4. Abnormal uptake in the left parietal-occipital parasagittal area. (Diagnosis: Large, arteriovenous malformation draining into the superior longitudinal and transverse sinuses).

Even lesions as small as 2.7 centimeters in mean diameter have been seen on brain scans.<sup>33</sup> Smaller lesions cannot be appreciated, even if located in areas of relative "isotopic silence" (i.e., less active areas, normally). Of course, if there is an associated hematoma, then the accuracy in "localizing" the lesion is greater. The appearance of these lesions on brain scanning is not typical in any way and may simulate tumors, infarcts, hematomas, etc. It is only by rapid serial scintiphotography, employing the scintillation camera, that one may make an accurate diagnosis. In fact, high concentration of radioactivity can be observed to pass through the malformation immediately after the intravenous or intra-arterial injection of the isotope. Conventional scans obtained fifteen to twenty minutes later will display a much reduced concentration of activity.<sup>34,35</sup>

## Inflammatory Lesions

Most intracranial inflammatory lesions can be demonstrated by brain scanning, provided that the area of involvement is large enough. Another factor contributing to a greater uptake of isotope by the lesion is its duration.

Positive scans in encephalitides have been obtained by many authors.<sup>25,26,36</sup> There are no constantly typical features; therefore, it is not possible to differentiate with the scan alone between these lesions and surgically treatable conditions, such as tumors or abscesses.<sup>36</sup>

In focal encephalitides, such as that which is caused by the herpes simplex virus, the involvement can be quite focal (temporal lobe). This, in conjunction with the acute and rapidly progressing clinical picture, may be considered fairly diagnostic or at least very suggestive of this often fatal CNS infection.<sup>37,38,43</sup>

More focal findings are noted in the more localized inflammatory lesions of tuberculous or fungal nature.

Brain abscesses are quite naturally amenable to diagnosis by brain scanning, showing fairly pronounced radioisotopic uptake (Fig. 5.). If the abscess has been encapsulated, the uptake will be of greater magnitude and more circumscribed.<sup>14</sup> Scans in brain abscesses are positive in almost 100 percent of the cases if the size is greater than one centimeter.<sup>38</sup> Thus, a negative scan in a patient suspected to have a brain



abscess should eliminate this possibility from the working diagnosis.

Cerebral sarcoidosis can be diagnosed by brain scanning. In fact, one may observe on



Fig. 5 Area of increased uptake in the subfrontal region of the right hemisphere (arrows). A central area of lesser uptake, typical of necrosis (doughnut sign) is present. (Diagnosis: Brain Abscess).

repeated scanning, reduction of the uptake by the granuloma and eventually its complete resolution while cortico-steroids are being used.<sup>39</sup>

### Degenerative Diseases of the CNS

Reports of positive scans in multiple sclerosis have been reported in the acute stages of the disease.<sup>14,40,41</sup> Since quite often the plaques of MS are found in the periventricular white matter, or as confluent areas of demyelination in

the corpus callosum, these locations, defined as areas of increased uptake on brain scanning, may help in avoiding misinterpretation of the radioisotopic findings as due to a tumor.

Also, cases of Schilder's disease have been published in which positive brain scans were obtained.<sup>42</sup>

### Conclusions

Brain scanning has achieved a place of great importance as a diagnostic method both for the detection and localization of intracranial pathological processes. It may help in deciding about the nature of the disease in question and fairly accurately define its size and extent. Its diagnostic usefulness easily overcomes the minimal hazard to the patient. Since it does not alter the often delicate balance of intracranial pressure, as a ventriculo-pneumoencephalogram will do, it gives the surgeon adequate time to plan further definition of the pathological lesion and the proper surgical attack.

At the same time, the brain scan is not a substitute for a slipshod or inadequate neurological workup. It should not be considered as a shortcut to diagnosis. It is not but another tool in the armamentarium of every conscientious physician.

*Acknowledgment:* The authors wish to express their appreciation to Mrs. Shirley Ange and Mrs. Sue Wheeler for their secretarial assistance and to technologists Mrs. P. Dmoch and Mrs. M. Kinard.

*Note:* A full list of references may be obtained from the author.

11 Bruton Avenue  
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### Special Phone Service

Special phone service for physicians seeking information or guidance on Phase 2 price controls is provided by the AMA. Just call (312) 527-1571, Ext. 434, and ask for Robert Walsh of the AMA Center for Health Services Research and Development. After closing hours messages will be recorded so that callback answers can be made. The AMA has received about 25 calls a week since establishing the service in August.

# Cleidocranial Dysostosis

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**Cleidocranial Dysostosis is an unusual condition due to a defect in membrane bone formation. Treatment consists of correction of deformities. A case is presented.**

**C**LEIDOCRANIAL DYSOSTOSIS is a condition caused primarily by a defect in membrane bone formation. The disease was first described by Marie and Sainton in 1898 and gave it its present name. Stiff and Lally report more than 380 cases recorded in literature since then but a more recent publication by Kalliala and Taskinen puts the figure at 600. There is a frequent history of hereditary transmission of the condition, affecting both men and women with equal frequency and it can be inherited by either sex. It may also appear spontaneously with no familial or hereditary history and probably is due to mutation.

The disease is characterized by abnormalities of the skull, teeth, jaws and shoulder girdle as well as stunting of the long bones. The vertebral column and the pelvis may also be affected. The most characteristic changes are seen in the clavicle which may show hypoplasia or complete absence of one or both clavicles resulting in markedly sloping shoulders with unusual mobility. In the skull, the fontanelles remain open or may exhibit delayed closure; the sutures also may remain open; the frontal, parietal, and occipital bones are prominent;

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Wormian bones may be present and the paranasal sinuses are underdeveloped and narrow.

Oral manifestations are very common, in fact, the disease is widely reported in the dental journals. The patient with cleidocranial dys-

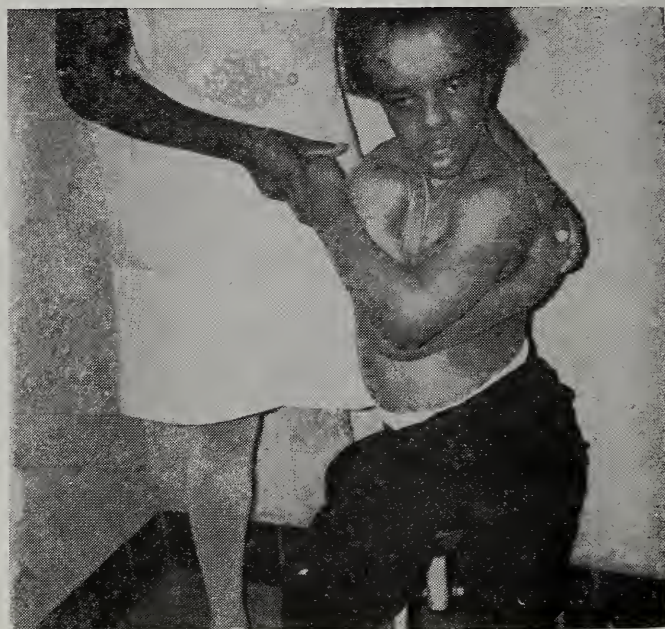


Fig. 1. This shows the rather large head with prominent frontal bosses. The nasal bridge is depressed. The shoulders show hypermobility and can actually be made to touch each other at the midline.

sostosis exhibits a high narrow arched palate; the maxilla may be underdeveloped or smaller than normal; cleft palates are common and the mandible may fail to fuse in the midline. One of the outstanding oral findings is the presence of numerous unerupted supernumerary teeth. There is prolonged retention of the deciduous teeth and sometimes this delay in eruption is permanent.

The spine may show lordosis, scoliosis, and kyphosis. Spina bifida is not uncommon. The pelvis is sometimes deformed with lack of ossification of the symphysis pubis and the sacroiliac articulation.

Cleidocranial dysostosis is diagnosed on the basis of physical appearance of the individual.



the clinical examination and the roentgenologic findings. Treatment of this disease is directed towards correction of the deformities.

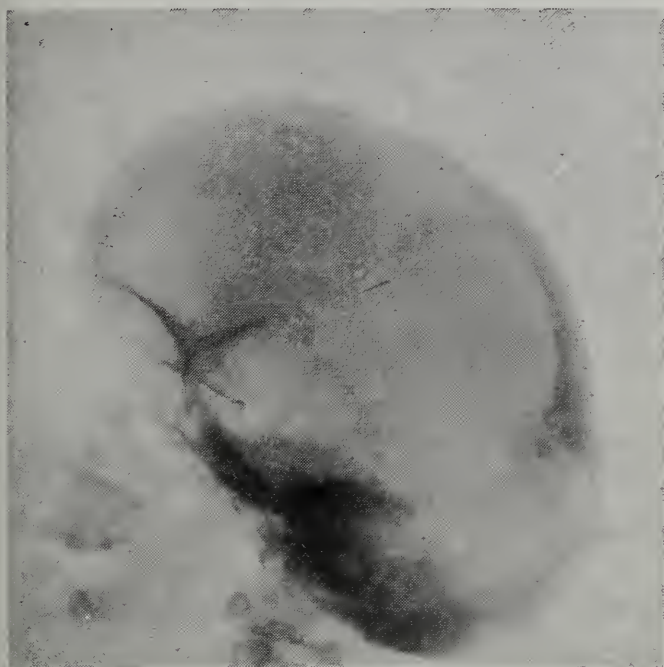


Fig. 2. X-ray of the skull shows increased A.P. diameter of the cranium with thickening of the base; evidence of previous Wormian bones in the parieto-occipital areas with prominence of the frontal bosses, which are assymetrical. The paranasal sinuses are poorly developed and there is evidence of defective dentition.

Dental anomalies frequently require intensive care and surgical correction. Sometimes orthopedic care of the malformed extremities may be needed.

### Case History

O.P., 34 years, single, Negro, female, was admitted to Petersburg Training School and Hospital on July 1, 1971, because of severe mental retardation and epilepsy. She was apparently mentally retarded since birth and had been brought up at home by her mother until about two years ago when she became unmanageable for which reason she was first admitted at Norfolk General Hospital in January, 1971, and a week later transferred to Central State Hospital on involuntary papers certified by her sister. She was subsequently transferred to PTS&H. She had a history of Grand Mal Epilepsy controlled by drugs for the past fourteen years.

*Family History:* There was no history of mental retardation or insanity in the family.

The patient's mother, age 55, has a seventh grade education and also had a similar condition which was diagnosed by her dentist by

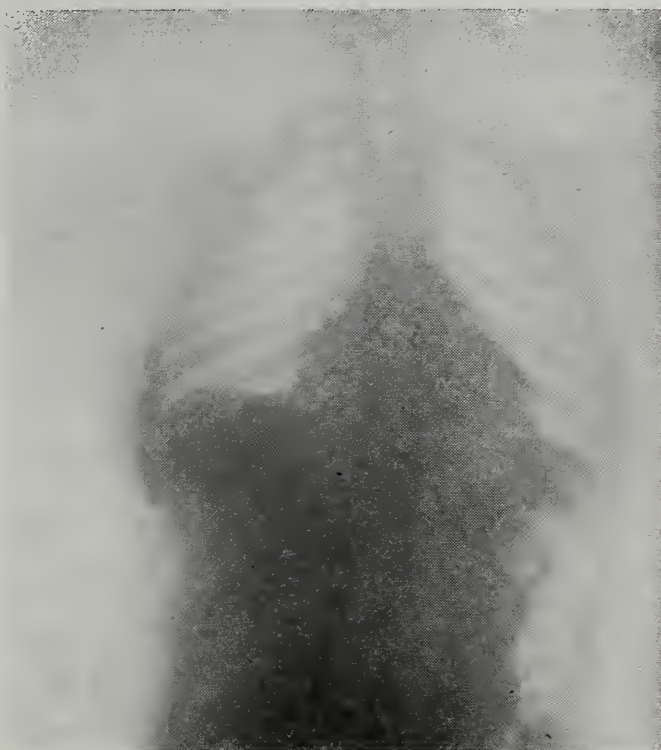


Fig. 3. This x-ray shows the segmental absence of ossification in both clavicles with assymetry of the rib cage. The lower cervical and upper dorsal neural arches are unclosed.

x-rays when she was already 45 years old. She also had an "absent collar bone" and had a "soft spot" on top of her head until the age of nine years. This patient also has a nephew, 20 months old at present, whose fontanelles are still opened and also with absent clavicles.

*Physical examination* showed a short statured Negro female of stated age, walking with a pronounced genu valgus deformity and with a body configuration of that of an achondroplastic dwarf. She is uncommunicative but can answer simple questions and is very hard to understand. Her intellectual level is obviously very low. The head is rather large with an inverted pear shape; the frontal bosses prominent; the sutures depressed but fused and the fontanelles closed. The nasal bridge is depressed and the nose has a broad base. The maxilla is slightly underdeveloped giving a prognathic effect to the mandible. The mouth shows a high arched palate. The teeth ex-

hibited malocclusion and malposed permanent left and right bicuspid and right first molar. A retained deciduous mandibular left cuspid is observed. The shoulders are drooping and shows marked mobility; the clavicles hypoplastic and only the proximal third is palpable. The upper and lower extremities are unproportionately short in relation to the normal length of the torso. The spine shows marked lordosis. The lungs and heart including the abdomen showed normal findings.

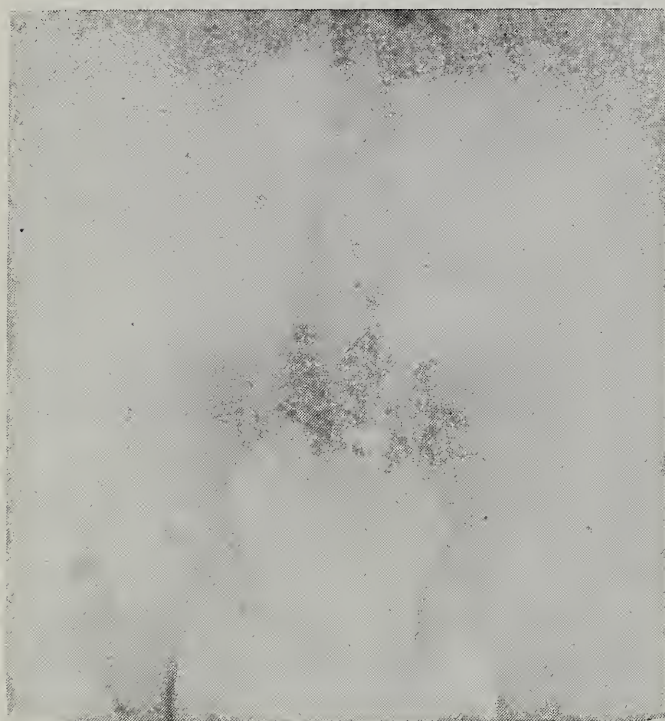


Fig. 4. This shows the failure of mineralization of the pubis and inferior ischial rami with distortion of the pelvic ring.

Laboratory examinations done several times since admission were all normal except for a persistent low Hemoglobin which ranged between 9.8 and 10.2 grams. Thyroid function studies were all within normal limits. VDRL was negative and Urinalysis were all normal. An EEG done in January 1971 showed no abnormality. The pertinent findings were seen on x-rays. The cranium showed increased PA diameter with thickening of the base; evidence

of previous Wormian bones in the parieto-occipital areas; prominence of the frontal bosses, which are asymmetrical; the paranasal sinuses are poorly developed and there is evidence of defective dentition. There is segmental absence of ossification of the clavicle, bilateral, with some asymmetry of the rib cage. The neural arches of the lower cervical and upper dorsal levels are unclosed. There is failure of mineralization of the pubis and inferior ischial rami with distortion of the pelvic ring.

## Summary

After a resume of its history and a brief description of the disease, a patient with an interesting case of cleidocranial dysostosis is described.

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The authors wish to thank Dr. R. E. Miller, Radiologist, and Dr. Nathan D. Wong, Chief, Dental Services, PTS&H, for their invaluable help in preparing this paper.

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# Sample Review

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**A system for review of medical records is presented. This achieves utilization review as required by medicare legislation.**

THE UNITED STATES GOVERNMENT, in the Medicare legislation, divides utilization review into two parts. The first of these is the "in-house", "on the spot" review of cases of extended duration. Dr. Vergil Slee refers to this as "medical necessity determination".<sup>1</sup> Such review, logically, would fall to the Medical Staff of a particular hospital.

The second area of utilization review defined by the Medicare Act is that of retrospective review. This is an after the fact review of admissions, medical services rendered, durations of stay, and other factors. Dr. Vergil Slee refers to this as "utilization evaluation". He subdivides this review further into "utilization review"—a statement of what transpired, and "medical audit"—the development of standards or criteria for care.<sup>1</sup>

Sample review is a system for review of medical records developed at the Alexandria Hospital. Sample review pertains only to the retrospective review as defined in the Medicare legislation. There are several basic concepts in the approach: (1) Provision only of information of potential educational value; (2) Savings of physicians' time; (3) Satisfaction of the requirements of the reviewing authority; (4) Potential for comparable data

from other hospitals; (5) Development of standards of care (audit criteria) at the local level; (6) Option for audit at the local level; (7) Compatibility with existing information systems; and (8) Interposition of a physician as narrator between the tabulations and the summary presented.

Interest in the development of a system for record review at the Alexandria Hospital stemmed primarily from concern that we were not performing this function to the satisfaction of the reviewing authority. Equally significant was the frustration of members of the staff at having to review, piecemeal, at intervals, a number of medical records—a review which benefited them little; if at all, educationally. A further stimulus came from a lack of continuity which prevented our staff from readily calling forth information from prior reviews.

The authors, who were instrumental in the development of this system for sample review, had several reasons for interest in the development of an effective means for record review.

(1) It had been our feeling that information developed from medical records should be developed by and for physicians. It is physicians who should put to use information so developed. We were and are concerned about the involvement here of interested third parties.

(2) We were aware of the demands for time made on the physician. This has been one factor in his reluctance to accomplish ordered record review.

(3) It was our feeling that physicians have some reluctance to use information systems. No matter how much data a system can provide, it will serve no useful function unless used by practitioners. It seemed important that some narrative interpretation be provided

<sup>1</sup> "The Utilization Committee and the Medical Audit", a chapter dated 27 May, 1966, in *Utilization Review Using PAS and MAP—A Compendium* published by Commission on Professional and Hospital Activities.

the users of any meaningful system of record review.

(4) Our technology today permits us to gather information and present this in myriad forms. The physician should have input into the design of a workable system for record review so as to insure that clinical information provided is pertinent and presented clearly.

(5) Standardization of review of records by various hospitals should offer advantages in development of standards of care. Such standardization should make a particular hospital's record reviews more meaningful.

(6) Data properly developed should have research value.

(7) Standards of care should be developed at the local level, leaving the option for audit, and the criteria for audit, with the particular hospital staff involved.

The system of record review, sample review, is based on the most common discharge diagnoses. Effective utilization review should be structured to provide an optimal purview of experience for the time and effort expended. In evaluating this approach, we gathered a six month experience of primary discharge diagnoses. The twelve most common diagnoses involved 36.8% of discharges and 27.5% of patient days. The twenty-four most common diagnoses involved 45.4% of discharges and 35.3% of patient days at our hospital. It seemed reasonable to conclude that this method would provide an adequate sample of our experience. Further, a far greater percentage of physicians on the staff would be represented in the reviews than would be apparent from the percentages for discharges and patient days presented. It was of interest that fifteen of the fifty most common primary discharge diagnoses were in operated categories.

We then developed source sheets for each of the fifty most common discharge diagnoses. (Fig. 1.) All source sheets have in common eight basic areas of information:

- (1) Patient's chart number
- (2) Attending physician's number
- (3) Age

- (4) Sex
- (5) Discharge status (alive or deceased)
- (6) Determination of necessity of admission
- (7) Determination of appropriateness of stay
- (8) Determination of the necessity of services rendered.

Fig. 1.  
SAMPLE SOURCE SHEET  
CHOLECYSTITIS AND CHOLELITHIASIS  
(acute, non-operated)

Necessity of Admission	Yes___	No___	?___
Appropriateness of Stay	Yes___	No___	?___
Necessity of Services			
Rendered	Yes___	No___	?___
Chart Number	_____		
Attending Physician's Number	_____		
Age	_____		
Sex	Male___	Female___	
Discharged	Alive___	Dead___	
ON ADMISSION			
Pain	Yes___	No___	
Jaundice	Yes___	No___	
Emesis	Yes___	No___	
Fever	Yes___	No___	
Elevated white blood count	Yes___	No___	
Tenderness on examination	Yes___	No___	
Duration of Stay	_____days		
Complication(s)	Yes___	No___	
Complete blood count	Yes___	No___	
Urinalysis	Yes___	No___	
Chest film	Yes___	No___	
Liver function studies	Yes___	No___	
Cholecystogram	Yes___	No___	
Electrocardiogram	Yes___	No___	
Lipase or amylase	Yes___	No___	
Initially nothing by mouth	Yes___	No___	
Low fat diet used	Yes___	No___	
Intravenous fluids used	Yes___	No___	
Antibiotics used	Yes___	No___	

Of all information gathered on the source sheets for any of the primary discharge diagnoses studies, only the items (6), (7), and (8). above, require professional judgment. These are the only three, therefore, which must be completed by a physician. They are answered, simply, by checking "Yes", "No", or "?".

Other areas from which information is gathered on the source sheets on the fifty most common diagnoses include:



- (9) Admission signs and symptoms
- (10) Duration of stay (In the case of operated diagnoses, the duration of stay from admission to surgery and from surgery to discharge)
- (11) Complication (s)
- (12) Laboratory data
- (13) Treatment

Source sheets so developed initially were then reviewed by specialists on our staff who would have particular interest in the primary discharge diagnosis source sheet under consideration. An attempt was made to insure that information gathered would be pertinent and would permit the development of standards for care by any user of the system. Attention was also directed to make certain that medical records personnel could complete the source sheets in all respects save those three previously mentioned requiring professional judgment.

In each area where information was collected, and where flexibility was inherent in the category, (items (9) through (13) above), provision was made to allow the user of the system to insert additional items of information which might have particular interest for the user. Thus, for example, in a sample review of myocardial infarction, while the occurrence of neck pain might not be found on the source sheet under (9) Admission signs and symptoms, the user could insert the item in this information area. The addition of this symptom would not affect the handling of data in the area, since it would be processed in the same manner as other signs and symptoms.

Finally, an effort was made to provide a relatively small number of points of information on a particular source sheet. In all cases, the number of points of information on source sheets for the fifty most common diagnoses range from twenty to thirty-five. This development characteristic was stressed to prevent a potential burden on medical records personnel.

In operation, the sample review system works in the following manner. A hospital with 14,000 discharges would want to review

approximately 1400 cases a year.\* The Record Committee on the staff of this hospital might elect to review a separate primary discharge diagnosis monthly. Such a sample review would be concerned with a review of about 120 cases of the particular discharge diagnosis chosen. Direction for selection of the primary discharge diagnosis for sample review might come from the committee members' personal experience or from data provided by an information system in use at the hospital. Once selected, source sheets for the chosen discharge diagnosis would be prepared in number sufficient to handle the number of cases to be reviewed, in the example 120. These source sheets would then be completed by Medical Records personnel in all categories save three: Determination of necessity of admission, Determination of appropriateness of stay, and Determination of necessity of services rendered. Since these are the three items on all source sheets requiring professional judgment, they would be completed by members of the Staff's Record Evaluation Committee by checking an appropriate location on the source sheet. i.e., "Yes", "No", or "?".

Completed source sheets are then forwarded for tabulation, calculation, and presentation of the data. Such presentation is accompanied by a narrative summary of the data, together with comparative information on other studies when available. The authors currently perform the above function at the Alexandria Hospital and for one other hospital in the State of Virginia. The Record Committee of the Staff is thus presented with a report, including not only tabulation and data presentation, but a narrative summary. They are then free to use this information as they desire.

The authors feel that the system described above has proved helpful in accomplishing sample review, i.e., retrospective review or "utilization evaluation". It would appear to meet the design concepts previously stated,

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\*It is our understanding that the reviewing authority requires hospital staffs to review approximately 10% of discharged cases in some manner.

i.e., (1) Provision only of useful information of potential educational value, (2) Savings of physicians' time, (3) Satisfaction of the requirements of the reviewing authority, (4) Potential availability of comparable data from other hospitals, (5) Provision for means to develop standards of care (audit criteria) at the

local level, (6) Compatibility with existing information systems, and (7) Interposition of a physician as narrator between the tabulations and the summary of data presented.

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### **Hypertension: The Neglected Disease**

More than half of the Chicagoans who have hypertension don't know it, and four out of ten who do know aren't being treated for it. This is doubly unfortunate, since early detection and treatment of high blood pressure lessen the probability of heart disease and stroke.

These are the conclusions regarding high blood pressure drawn from a four-year developmental program conducted by the Chicago Heart Association to screen for the risk of coronary heart disease and published in the October 30th issue of the *Journal of the American Medical Association*.

Of the 22,929 industrial employees who volunteered for the free tests, 4,625 were found to be suffering from high blood pressure, which for the purposes of the study was considered to be above 95 diastolic and/or 160 systolic. The majority (58.9%) were not being treated and denied having been told of the disease prior to this screening, although most had seen their doctors in the preceding two years. The authors of the study speculate that the disease either was not diagnosed or

that the patients simply were not told by their doctors that they had high blood pressure.

Thus, in spite of recent publicity on the benefits of early treatment, findings from the Chicago survey showed no improvement over results of a nationwide Public Health Service survey conducted in 1960-62. If anything, the recent survey indicates that fewer people are currently being treated by hypertension, although the incidence of the disease has not decreased.

People most likely to have high blood pressure are male, black and over 45 years of age.

The authors conclude that "our nation has a sizeable, unresolved problem of control of hypertension, and an urgent need to implement effective approaches for the management of this serious mass disease."

Authors are James A. Schoenberger, M.D., Jeremiah Stamler, M.D., Richard B. Shekelle, Ph.D., and Susan Shekelle, from Rush-Presbyterian-St. Luke's Medical Center; Northwestern University Medical School; University of Illinois Abraham Lincoln School of Medicine; and the Chicago Heart Association Detection Project in Industry, Chicago.



# Correspondence . . . .

## Alternatives to Abortion for the Unwed Mother

TO THE EDITOR:

I read with interest the two articles dealing with abortion which appeared in the August issue. The article by John S. Morris, Jr., M.D., "Alternatives to Abortion for the Unwed Mother" presents much opinion, many vague and misleading references and a great deal of opinion presented as fact. He would have us believe that abortion is necessarily a traumatic experience. He supports the idea of child-birth as a maturing experience for a pregnant child. And nowhere in this anti-abortion article does he mention married women, who will also suffer the consequences of negative attitudes toward abortion.

Dr. Morris states ". . . unlike other surgery, the non-medical accompaniments of a legal abortion could not be better designed to produce conflict, guilt and shame. . ." He apparently sees this as just, supporting it with references such as "To be pregnant and not want to be a mother is contrary to Western ethics." Dr. Z. M. Lebensohn, writing in *The American Journal of Psychiatry*, agrees; ". . . the present system almost seems designed to increase the anxiety and depression of the woman in the critical weeks of waiting for consultations, committee approval and an available bed. . ." However, he also assigns blame, ". . . the narrow, moralistic, conservative and often punitive attitudes of some obstetricians, hospital administrators, anesthetists and nurses will act as a stumbling block for years to come. . ." If such is the case, it dishonors the medical profession. Instead of castigating the surgical procedure, it behooves us to educate hospital staffs.

Nowhere in my reading, in discussions with women who have had abortions or with psychiatrists who counsel them, have I found negative reactions of the type this article would suggest.

Dr. Morris quotes Dr. Helene Deutsch to the effect that the birth of an unplanned child

can be a "maturing factor and growth experience." To further quote Dr. Deutsch:

. . . public opinion, common sense and normal moral judgment supports the woman's human right to be a mother or to avoid being a mother by any of the means at her disposal according to her wishes . . . the normal reaction to abortion is overwhelmingly in the most varied civilizations to take the woman's part despite any laws to the contrary.

Dr. Morris does not discuss the pregnant married woman, who accounts for 36% of the legal abortions in Dr. Shanholtz's study. Must she bear and raise a child against her will? Or shall we present as alternatives going to a home, away from her family for five months, or perhaps carrying the child, giving it up for adoption and fabricating an explanation for her other children?

Certainly, adoption should be discussed with any woman pregnant against her will. And certainly we must increase public education to prevent unwanted pregnancy. But when contraception has failed and a woman does not wish to continue her pregnancy, I agree with G. Hardin:

A woman who aborts this year because she is in poor health, neurotic, economically harassed, unmarried, on the verge of divorce, or immature, may well decide to have some other child 5 years from now—a wanted child. If her need for abortion is frustrated, she may never know the joy of a wanted child.

I urge members of the medical profession to give each pregnant woman the unbiased counseling she needs to make her decision in this most personal of all matters.

Thank you for your consideration.

SUSAN G. BENDER

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# Cancer Trends . . . .

Edited by—

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## Rehabilitation of the Ostomate

GEORGE E. ROBINSON

The need for our program to rehabilitate the patient who will have, or has, an "ostomy" is apparent from concerns expressed by both patients and physicians. The surgeon is often distressed, after completing a successful surgical procedure, to find that he is unable to meet the complete needs of his patient. The surgeon obviously represents an immensely important authority figure to all ostomy patients, a figure whose interest and support are critical to the reestablishment of hope for a normal life in the future. However, there is a lack of identification that hampers the meeting of the patient's full emotional needs, but this can be given by another patient who also has an ostomy. The patient, at this point, is not in need of hearing the answers to his questions, but rather seeing the answer in the walking, talking, form of a well adjusted person who leads a completely normal life despite an ostomy.

To meet these needs we have initiated the Ostomy Rehabilitation Program of the American Cancer Society to work with the doctor in terms of his basic concerns and desires for physical and emotional restoration of his ostomy patients. This program follows the guidelines of the "Reach to Recovery" pro-

gram of the American Cancer Society for female patients who have had a mastectomy. Physicians are often concerned regarding the nature of the visitor and the information that will be given to a patient when any outside individual deals with his patient, particularly when he is not fully aware of the nature of the interview that will take place or the ability of the non-physician to help rather than confuse the situation. This is understandable. To alleviate these fears we are endeavoring to provide a statewide program of hospital visitation that will consist of carefully chosen and well-motivated volunteers who are well trained for this project. Groups from the United Ostomy Association in Virginia have combined their efforts with the American Cancer Society to develop a well organized program of training and continued screening of visitors participating in this rehabilitation program for ostomy patients. The activities of this program thus far have met with uniform approval of physicians and patients alike.

The most traumatic experience in one's life may well be experienced at the time of ostomy surgery. Think for a moment of one who has just found out that he requires surgery for rectal cancer. Most often this is a person who has enjoyed good health, and then a few abnormal symptoms appear which lead to rapid hospitalization and surgery. All is so new and so fast that a quick adjustment is not so easy when the words "cancer" and "colostomy" are

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Sponsored by the Professional Education Committee, American Cancer Society, Virginia Division.



added to his personal vocabulary. Often the patient has heard only second hand about someone who has had "one of these things". It could have been old Uncle Harry, who was too feeble to care for himself and, of course, who lived back before the modern day appliances and techniques were available. Thus the story of a feeble old man with an unpleasant odor became the negative information of a poor situation that was passed down as the status quo of anyone who owns an ostomy. Incorrect information and fear need to be eliminated from this patient's mind for him to have an optimistic view of the future.

While visiting as an invited guest at a medical conference, I observed a man who had suffered with ulcerative colitis for 21 years, and was now at the point of being completely disabled by his disease. He sat before the class, weakly answering a few questions as to why he came to the Medical Center, and telling of his problems, etc. He was finally asked by the doctor if he would consent to surgery to which he retorted: "Yes, if it would help." Then with a very brief pause he added: "Unless it means one of those bags,"—pointing to his side, "I'll never have that." His attitude was so definitely against an ileostomy that it appeared that the case was closed. This would not only mean that his life would continue to waste away in a useless fashion, but the chances of developing cancer in his diseased colon were increasing daily. After he left the conference the doctor asked if I, as an ostomate, could pay a visit to the patient and his wife as soon as possible. He and his wife were visited and the reasons for his negative attitude became very apparent. Both were very firmly against surgery because of advice given them by a doctor, now retired, for whom they had great respect. He impressed upon them, 20 years before, that this type of surgery had not proved to be successful and would only lead to additional surgical procedures. Without reference to this physician or his advice, I talked with them and answered questions concerning the success following my own surgery. Within the hour this man's reaction surpris-

ingly changed, and he positively expressed to his doctor that he was ready for surgery and "the sooner the better." This is but one example of how quickly identification is made with a normal, healthy ostomate, who appears to be living life to its fullest. Example after example could be given of success in visiting the patient both pre-operatively and post-operatively. With the proper attitude and approach being made by the visitor, only benefit and support can come to your patient.

In our training session with ostomy rehabilitation volunteers we deal thoroughly with three major areas: acceptance, attitude, and the proper approach to the patient. Our goal is to have the visitor possess a definite, positive outlook that is saturated with the attitude of acceptance, and this implants the seeds of real confidence in the patient. We stress the fact that the relationship of the patient to his doctor is not to be tampered with in any way. We are aided in this part of our training by our State medical advisor, Dr. M. C. Wilhelm, who guides each session. He has his own personal part in the training when he shares very candidly what he, as a physician, expects from the trainees as patient visitors.

Our training sessions have been conducted in Richmond for the most part with the American Cancer Society supporting expenses and seeing that the approved volunteers are transported to the training sessions from any place in the State. To be approved for this course of training, each volunteer must have received an acceptable report from both his surgeon and physician concerning his emotional and physical readiness for this type of activity. Thus far we have received approved applications from volunteers in Tidewater (which includes Norfolk, Portsmouth, Newport News and Hampton), Northern Virginia, Richmond, Harrisonburg, Waynesboro, Staunton, and even Bluefield, West Virginia. We have prospective volunteers from many other areas as well. This program is now working effectively in four major areas of the State and our goal is to see it working effectively in all areas of this State.

The administrative aspects of the program are structured through the local and area offices of the American Cancer Society. Each area has a medical advisor and a coordinator, who is a trained ostomate, to insure smooth function on the local level. The coordinator is the one who carries the process through, after you or a member of your staff has contacted the local ACS office. In communities where there is only one hospital, it has been so arranged with the nursing staff that a direct call may be made to the coordinator. The coordinator then picks out the properly trained volunteer to meet the specific needs of the patient concerned. Possibly your patient is a young lady who is facing, or who has recently had an ileostomy performed. An attractive, well adjusted young lady with an ileostomy will then be sent to visit this patient. Your next patient may be a man in his 50's who has a colostomy and a man of about his age who has a colostomy will be sent to see him. In some areas we have trained parents of small children who have required an ostomy, as they can be of great help to both the parents and the child in a like situation.

The major technical assistance that is required for solving difficult stoma or appliance problems is not the objective of this program. These are professional matters involving physicians, nurses, or even specially trained enterostomal therapists. The objective of our rehabilitation program is clearly the emotional support that is critical to the patient and those bits of personal advice which give so much confidence to him. At present we are fortunate in Virginia to have three enterostomal therapists who are of great help when special problems arise. Miss Beryl Evans, R.N., E.T., operates a stoma clinic in Charlottesville at the University of Virginia, Mrs. Helen DuBoise, E.T., has recently begun work in the Tidewater area, and Miss Elizabeth Wright, E.T., will soon begin work in this specialized field in the Richmond area. If you desire special technical assistance of this type, the office of the Virginia Division of the ACS can cer-

tainly assist you in making contact with the appropriate individuals.

Our program is new but we are very pleased with its progress. The more volunteers we have in each area of Virginia, the more effective our rehabilitation program will be. As a physician you may know patients with ostomies whom you feel would be both interested and suitable candidates for training in this program. This could be of great help to us as well as to your future patients who will require ostomies. Contact can be made with your local ACS office by either your patient or your staff, and we will pursue this opportunity from there.

Whether it be a colostomy, ileostomy, ileal-bladder, or ureterostomy, we are ready to be of service to both doctor and patient. Although this program is sponsored and supported by the ACS, this service is available for any patient with an ostomy, no matter what the diagnosis may be. Please help us help you.

### Comment

The same approach that has been employed so successfully for the mastectomy patient in the "Reach to Recovery" program is now paying big dividends in the case of another type of patient problem. It is through dedicated volunteers who share the same problems that the Virginia Division of the American Cancer Society is now able to provide this valuable assistance in the preoperative and postoperative care of our ostomy patients. As physicians we have the full responsibility of describing the nature of the stoma we plan to produce on a prospective patient, and the responsibility of solving the problems that it may produce. However, we can never provide the kind of support that a happy, confident, and productive ostomate gives by paying a sympathetic but optimistic preoperative visit. This volunteer reinforces this support by following through in the postoperative period and giving the added confidence that is so necessary. By matching the social features of the visitor to that of the patient, this unique rehabilitation service is particularly effective.



Although this program for patient acceptance and rehabilitation is sponsored by the American Cancer Society, the common denominator is clearly problem-oriented rather than disease oriented. It should be emphasized that both the volunteers and the recipients of this service include many who have surgical stomas produced for other reasons than the presence of cancer. The living proof that normal life is possible despite the presence of an abdominal stoma is the message that really comes across!

Our author, George Robinson, deserves con-

siderable credit for the initiation and organization of this program in Virginia. In past years he has been of great help in our educational programs for medical students and house officers. Everyone knows that there is no one as effective in such teaching efforts as the man "who owns one", and Reverend Robinson has modestly taught us all a great deal. This new exciting program is a tribute to his initiative, his enthusiasm, and his good will toward his fellow man. We thank him, and salute both him and his fellow volunteers.

THE EDITORS

### **Clinical Center Study of Patients with Lung Cancer**

The cooperation of physicians is requested in the referral of patients for studies of lung cancer being conducted by the National Cancer Institute's Radiation Therapy Branch at the Clinical Center, National Institutes of Health, Bethesda, Maryland.

Needed are patients 55 years of age or younger who have a biopsy proven diagnosis of lung cancer, and who have not had radiotherapy or chemotherapy. Inoperable cases will be admitted for either radiotherapy or chemotherapy as indicated. Patients are also acceptable for consideration of postoperative radiotherapy following a potentially curative

resection. Under selected conditions, patients with known metastatic disease will be admitted.

To be eligible for these studies patients must be able to undergo necessary diagnostic tests and initial treatment on an ambulatory basis, rather than needing immediate hospitalization because of poor general condition.

Physicians interested in having their patients considered for admission to these studies may write or telephone: Kent B. Lamoureux, M.D., Clinical Center, Room B3B-38, National Institutes of Health, Bethesda, Maryland 20014. Phone: 301-496-5457

# Public Health . . . .

MACK I. SHANHOLTZ, M.D.  
*State Health Commissioner of Virginia*

## **Services of the Consolidated Laboratories Available to Physicians**

The State Health Department laboratory was established by the General Assembly in 1908 to provide laboratory services for the Health Department and the medical profession of the State. These services were provided free of charge. Except for significant increases in the types of services offered and the number of specimens received, the laboratory system remained essentially the same until the General Assembly of 1972 established the Division of Consolidated Laboratory Services. The establishment of this new division was an effort on the part of the General Assembly to merge a number of State-operated laboratories into one division. The goal was not only to save the taxpayer money but to better utilize the talent and equipment available to provide more and better services and eliminate duplications.

The new Division of Consolidated Laboratory Services officially came into existence on July 1, 1972. It is governed by a nine man Operational Board made up of representatives of the user agencies, that is the agencies in State government that use the laboratory to support their activities. To reduce overhead expense, the Division receives administrative support in personnel, fiscal and procurement areas from the Health Department.

In this new division the various State-operated laboratories have been organized into four bureaus. The Division Director is Dr. Albert W. Tiedemann. The four bureaus, each headed by a deputy director, are: The Bureau of Product Testing, The Bureau of Environmental Science, The Bureau of Forensic Science, and The Bureau of Microbiological Science.

The Bureau of Product Testing basically is made up of personnel and functions from the

Division of Technical Services, Department of Agriculture and Commerce, and the Alcoholic Beverage Control Board. The Bureau of Environmental Science is made up from the former laboratories of the Water Control Board, the Air Pollution Control Board, and the Industrial Hygiene and Water Chemistry laboratories of the Health Department. The Bureau of Forensic Science, which represents a new concept in Virginia, includes the Drug laboratory from the Department of Agriculture and Commerce and the Toxicology laboratories from the Health Department's Office of the Chief Medical Examiner. This bureau will be greatly expanded to include a number of activities to aid the law enforcement agencies of the State. The Bureau of Microbiological Science is a combination of the former Health Department laboratories, the Food Microbiology laboratory from the Department of Agriculture and Commerce, and the Water Bacteriology laboratory from the Water Control Board. Included in the division are the former Health Department branch laboratories at Luray and Abingdon and the former Northern Virginia Police Laboratory at Fairfax.

All four bureaus will be housed in the new Consolidated Laboratory building at one North 14th Street and operation of existing branch laboratories will continue. Two new regional forensic laboratories are to be established in Roanoke and Norfolk.

The services of the entire division are available to the public and private medical community of the State. Except in rare instances, these services are provided without charge to any physician to assist him in the diagnosis and treatment of his patients. When necessary the combined talents of several bureaus will be brought to bear in solving a problem. This obviously provides a tremendous poten-



tial that has always been available, but heretofore was scattered and difficult to coordinate. Some of the services available from the division that the physician will find useful are described below.

The Bureau of Microbiological Science with laboratories in Richmond, Abingdon, and Luray make over 600,000 examinations a year, the majority of which are submitted by health departments, hospitals, and private physicians.

One of the areas frequently utilized by the physician is our services available in Venereal Disease detection. The increased number of cases of V.D. and some improvements in the methods of detection have significantly increased our specimen load in this area. The VDRL Serological test for syphilis is the standard non-treponemal test used in routine screening for syphilis. In cases of diagnostic problems, the FTA-ABS test is available. This is a treponemal test and is considered a highly sensitive and specific test for syphilis. This test, however, is not intended to be used for routine screening for syphilis.

Another Serological test in the area of Venereal Diseases is the Complement Fixation test for lymphogranuloma venereum (LGV). This test detects antibodies to the LGV-psittacosis group of virus and this fact must be taken into consideration in interpreting the results. Smears can be examined for evidence of granuloma inguinale and *Haemophilus ducreyi*. Darkfield examinations are best done in the field of the V.D. investigators and is no longer available from the laboratory. Detection of gonorrhea can be adequately made by gram stained smear on male patients, but the newly developed selective medium is recommended for detection of the disease in females. For transporting specimens in the mail to the laboratory, a selective media called "Transgrow" is available from the laboratory or the local health department. In addition to the medium contained in the bottle, it also contains carbon dioxide to encourage growth of the gonorrhea organism. Therefore, the bottle must be held in a vertical position when inocu-

lating the medium. The medium helps the sensitive gonorrhea organisms to survive the trip to the laboratory.

In other areas of bacteriology, the laboratory examines throat swabs for group A Beta Hemolytic Streptococcus, coagulase positive *staphylococcus aureus* and *Corynebacterium diphtheriae*. Salmonella and Shigella are isolated from fecal specimens and occasionally food and water. Our mycobacteriology laboratory can isolate and identify *M. tuberculosis* as well as the atypical mycobacterium. Drug sensitivity tests are also available on the mycobacterium.

The microbiology laboratory has the capability of identifying most of the bacteria involved in human disease. Our special bacteriology unit serves as a reference laboratory to assist hospitals and private physicians by identifying bacteria isolated in their laboratory. This may include serotyping Salmonella or phage typing staphylococcus to aid in epidemiological investigations.

The parasitology section examines fecal specimens for ova and parasites as well as cellophane tape preparations for pinworms. A special kit is available when amebiasis or other protozoan diseases are suspected.

A long list of serological tests for antibodies to various agents is available. We will mention only a few here: the traditional febrile diseases tests, infectious mononucleosis, ASO, trichinosis, leptospirosis, toxoplasmosis, histoplasmosis, blastomycosis, coccidioidomycosis, Rocky Mountain spotted fever group, typhus, and *Mycoplasma pneumonia*. Serological tests for a number of viral agents are available such as influenza, parainfluenza, RS, EEE, SLE, VEE, mumps, measles, rubella, polio, CMV, adenovirus, and HS. Paired acute and convalescent specimens are generally required for serological tests for these viral agents since diagnosis is based on a change in titer between the two specimens. Paired specimens are recommended on all serological tests for maximum utilization of the information provided by the test.

The mycology laboratory examines hair, skin and nails, and body fluids for fungus as

well as makes identifications of fungus cultures submitted by hospitals and physicians' offices.

The virology laboratory, in addition to making a number of serological tests mentioned above, has the capability of isolating and identifying most of the viral agents involved in human diseases found in this area. Because of the time involved in the isolation and identification, these viral isolations are useful mainly as epidemiological tools in determining the cause and extent of a viral disease. As a general rule, specimens for virus isolation must be submitted to the laboratory frozen and by the most rapid means available.

One viral disease that requires special comment here is rabies. A number of cases of rabies are diagnosed each year among the wild and domestic warm-blooded animals in Virginia. Animals suspected of rabies, particularly in cases of human exposure, should be submitted to the laboratory as soon as possible. Large animals should be decapitated; small animals such as squirrels, chipmunks, bats, etc., may be submitted intact. The specimen should not be frozen, but submitted refrigerated with wet ice or packages of refrigerant. All positives are reported by phone to the local health department or the physician involved or both.

Samples of food or drink suspected of causing food poisoning are examined by the Bureau of Microbiological Science. Assistance in investigating the outbreak can be obtained from the local health department, the State Epidemiologist in the Health Department, or the Food Regulatory Section in the Department of Agriculture and Commerce.

Samples of water for drinking are examined bacteriologically according to methods recommended by the EPA. All public supplies are routinely examined. If a private well is to be examined, the local health department sanitarian should be consulted. He can not only collect a sample for analysis, but examine the well for evidence of possible sources of contamination. Tests for fecal coliform are also available on recreation waters to determine their acceptability.

Testing of newborn infants' blood for evidence of phenylketonuria is required by Virginia law. This screening test as well as follow-up tests on children with the disease is done in the Microbiological Science laboratory.

A screening test for diabetes is available from this bureau also. This test uses the unopette and requires only 20 micro liters of blood which can be obtained by a finger puncture. Care must be taken to assure that the collecting pipette contains the correct amount of blood, otherwise the results will be difficult to interpret.

The above are primarily the services the State Health Department laboratory, now the Bureau of Microbiological Science, has provided in the past. In addition to this, the following are some examples of services available from other bureaus in the consolidated laboratory.

The Bureau of Product Testing has the capacity of testing materials for pesticides and other hazardous substances. This may involve unknown dry materials or liquids for the presence of these substances. If the material is normally perishable, it should be submitted frozen to prevent deterioration in transit. This bureau also examines commercially prepared food and drink for filth and adulteration. Here also, if the material is normally perishable it should be submitted refrigerated or frozen.

The Bureau of Environmental Science can examine drinking water for such chemicals as sodium, nitrates, fluoride, heavy metals or for other chemicals that the physician may need in the treatment of his patients.

Tests for lead are available on chips of paint, pottery or other materials suspected of containing lead. Usually the pottery is not significantly damaged by the testing and can be returned to the owner for uses other than containing food or drink. Blood lead determinations are also available. The blood specimen must be collected in a lead free tube. Those planning to use this service should consult with the laboratory for recommendations on collection tubes.



The Bureau of Forensic Science Toxicology laboratory is capable of analyzing biological samples for the identification and quantitation of alcohols, various drugs, poisons, toxic gases, and toxic metals. This bureau also examines drugs submitted through the State Board of Pharmacy for quality control as well as examination of materials for illegal drugs. These latter services, although primarily used by law enforcement and Board of Pharmacy

agents, are also available to the medical community.

This is certainly not an exhaustive list of services available from the new Division of Consolidated Laboratory Services, but does give a broad picture of the capabilities of the laboratory. Special or unusual samples referred to the Division should be accompanied by details on source of sample and suspected problem.

### **Physicians Run the Risk**

Physicians run the risk of being subjected to retroactive denial of Medicare benefits unless they are able to provide acceptable documentary evidence substantiating dates of their hospital visits, the AMA warns. As a precautionary measure, the AMA urges physicians to "make sure that there is an entry on the hospital record for each patient substantiating the date of each visit." To guide physicians the AMA has developed an informational statement based on Medicare rules and verified by the Bureau of Health Insurance. Write the Division of Medical Practice, AMA.

### **Emergency Loan Program**

Emergency loan program jointly established by the Pennsylvania Medical Society and the AMA helped nearly 150 flood-stricken physicians reestablish their practices. PMS and AMA allocated \$300,000 each to provide interest-free loans of up to \$5,000 to physicians whose offices were damaged by Hurricane Agnes.

# Medicare B....

## **Disclosure of Carrier Charge Profiles to Physicians**

Disclosure of information under the Medicare program, as under all Social Security Administration programs, is strictly limited by statute and pertinent regulations. Among the limited situations under which Medicare information may be released to members of the public are those where disclosure will not reveal tolerance rules essential to effective program administration, nor constitute the release of information about a beneficiary or other program participant to persons without a legal interest, nor involve an unwarranted expenditure of public funds without serving a commensurate public purpose.

The regulations do not permit the *general* disclosure of information about allowable charge levels for physician services which are used in the processing of health insurance claims under the statutory concept of "reasonable charge". To make public the tolerance rules which apply in the development and adjudication of claims would render those rules ineffective as screening devices.

Intermediaries and carriers, however, have been instructed that they may release an individual physician's recorded customary charge upon his request, but only if (1) the request relates to a specific service furnished to a specific patient, (2) the physician has accepted the patient's assignment, and (3) the release of the customary charge would not disclose the prevailing charge level for that service. In non-assignment cases, the basis for the Medicare payment decision cannot be disclosed to the physician, since he has established no legal interest in the payment relationship between Title XVIII and the beneficiary.

President Nixon signed HR 1, the Social Security Amendments of 1972, into law on

CURTIS J. KELLY, JD

Monday, October 30, 1972, and so put to rest much speculation as to the likelihood of a veto. Despite the fact that the Conference Committee version of the bill was considerably "stripped down" from the legislation that passed the Senate, the law as signed contains many changes. The changes have varying effective dates ranging from the enactment date to July 1, 1976.

It will undoubtedly take months for the amendments to be reflected in the official publications, regulations, manuals, etc. As they are published, we will summarize them for your review.

Some of the changes reflected in the amendment include:

(1) Effective 7/1/73 under requirements to be specified by the Secretary, Medicare coverage is extended to those under 65 who are currently or fully insured or entitled to monthly Social Security benefits, and to the spouses and dependent children of such individuals, who require hemodialysis or renal transplantation for chronic renal disease.

(2) The law provides for recognition of a licensed optometrist as a physician, but only for the purpose of attesting to a beneficiary's need for prosthetic lenses. Effective 10/30/72.

(3) Coverage for services of Chiropractors for services of manual manipulation of the spine subject to standards to be established by the Secretary. Effective date 7/1/73.

(4) Outpatient speech pathology services are covered subject to certain requirements. Effective date 1/1/73.

(5) Coverage is provided for colostomy bags and supplies directly related to colostomy care. Effective date 10/30/72.

(6) The Part B Medicare Deductible is



increased from \$50.00 to \$60.00. Effective 1/1/73.

(7) The Medicare B "Fair Housing" is authorized only when the amount in controversy is \$100.00 or more. Effective with

respect to claims filed in or after October 1972.

(8) Provisions for the establishment of Professional Standards Review Organizations (PSRO's) were made.

### **Frostbite Season Is Here Again**

Frostbite is an important health hazard each winter in most parts of the country.

The American Medical Association reports that true frostbite means that the tissues are frozen. Crystals of ice form between the cells. Nerves, muscles and blood vessel tissues are the most susceptible. Frostbite can happen before you know it, and it isn't necessary for the temperature to be excessively low. The wind plays an important role. The chilling effect of air at 20 degrees moving at 45 miles an hour is the same as 40-below-zero air on a still day.

One of the dangers of frostbite is that you often don't feel it. First thing you know is that someone else notices that your ear or nose is turning white. The frozen part becomes hard to the touch, and loses feeling. Many sports leaders advocate a buddy system for outdoor winter sports; two persons are paired off, each watching the other for signs of frostbite.

To prevent frostbite, first be certain that you are properly dressed for the temperature.

Avoid overexertion and excessive perspiration. Avoid contact of bare flesh with cold metal. Don't drink alcohol or smoke.

In first aid for frostbite, forget the old saw about rubbing the affected part with snow, and also forget the completely invalid caution against rapid thawing. Also, don't massage or rub the frozen part. Don't touch it at all.

Begin a rapid rewarming as soon as possible. A hot bath is excellent, but avoid scalding. Hot wet towels will help, changed frequently and applied gently. If no fire or hot water is at hand, place the patient in a sleeping bag, or cover with coats and blankets. Hot liquids will help raise the body temperature.

For any frostbite, even a mild case, prompt medical attention is important. The depth and degree of the frozen tissue cannot be readily ascertained, and the treatment will vary with the severity of the injury.

Dress properly and use common sense about exposure in severe cold, and most cases of frostbite can be avoided.

## Woman's Auxiliary . . . .

*President* . . . . . MRS. WILLIAM J. REARDON  
*President-Elect* . . . MRS. DONALD F. FLETCHER, JR.  
*1st Vice-President* . . . . MRS. WILLIAM GORDGE  
*2nd Vice-President* . . . . MRS. WALLACE BAKER  
*3rd Vice-President* . . MRS. M. PINSON NEAL, JR.  
*Corresponding Secretary* . MRS. HANS KLAPPROTH  
*Recording Secretary* . . . MRS. RICHARD CLARK  
*Treasurer* . . . . . MRS. HAROLD WILLIAMS  
*Directors* . . . . . MRS. DAVID B. HILL

MRS. REUBEN F. SIMMS

MRS. JOSEPH M. STRAUGHAN

### **Health Education**

Since there is a multiplicity and duplication of programs the county auxiliaries could work with the existing agencies and strengthen those programs already in effect. Doctors' wives are presently active in many of these groups and by working with them as representatives of the medical auxiliary, we can make others aware of our community interest and the volunteer hours we contribute.

The library system has funded programs needing volunteers. Mrs. William Reardon, President of the Woman's Auxiliary to The Medical Society of Virginia, has designated the TALKING BOOKS program as a special project this year. Miss Dena Wilson, Librarian for the Virginia State Library for The Blind and Physically Handicapped, spoke at the board meeting at the State convention in Williamsburg. Volunteers can identify and inform eligible children and adults of the program, aid patients in applying and supplying information by taking calls in the library, and deliver and explain the operation of the machines to the patients. In addition, auxiliary members could help the doctors become aware of this service by supplying information for the office for reading and mailing. TALKING BOOKS is funded by State and federal funds. The only requirement is a statement from the patient's doctor stating his disability for eligibility. The program is already in effect in some areas of the State. The auxiliary should

contact the local librarian or if the service is not available contact Miss Wilson at 3003 Parkwood Avenue, Richmond, 23221. Her goal is to make it available to all libraries in Virginia.

The Arlington County Library has asked the auxiliary to coordinate a health-education program for them. They were very concerned about young girls, between the ages of eight and eighteen, who were baby sitters during the summer months. A common occurrence was for the sitter to bring the child or children into the library during the hot weather to find a cool place. Frequently the child was pulled along in a stroller, buggy, or by hand with a bottle of stale milk. The sitter had no interest in the library or her child and frequently had no knowledge of her care and responsibility. In an effort to remedy this situation, there will be six sessions held on consecutive Saturday mornings in the library. The participants will be trained by representatives of various agencies of the county, and will be awarded a certificate by the auxiliary if she attends all sessions. She can present this for future employment. The county libraries are information centers and offer numerous opportunities for community projects.

The Cancer Society has package programs that would be ideal for auxiliaries. One such program is for self examination of the breast for mothers and their daughters of high school age. A hospital clinic not being used on a Saturday morning would offer a professional atmosphere with a doctor and nurse in attendance. Information for this is available from the Society at 3218 West Cary Street, Richmond, 23221.

In February the Cancer, Heart and Tuberculosis Associations of Northern Virginia are sponsoring a smoking cessation clinic. The auxiliaries will furnish recorders for the group sessions. The recorder may also be one who wants to quit smoking.



The Dietetic Association has many suggestions and ideas for programs on nutrition. The Northern Virginia Dietitian's Association is assisting in planning a nutrition program for the community on Saturday, April 7, 1973, from 10-12 Noon. This program is being co-sponsored with the Virginia Council on Health and Medical Care. The Council has many resources available to us for health education programs. They sponsor several programs each year, any of which would fit into an auxiliary program.

The Northern District Junior Woman's Clubs of the Virginia Federation of Woman's Clubs has offered to do the publicity for the April meeting. The District PTA Association will make contacts with the schools.

The moderator for the panel discussion on April 7 will be Mrs. Mildred Randall, Registered Dietitian, Professor of Nutrition for the School of Nursing at American University. She is Chairman of the Committee on Nutrition Education for the Mayor's Commission of Food, Nutrition and Health in Washington, D. C. In addition, Mrs. Randall is the Nutrition Consultant for the Asbury Methodist Nursing Home in Gaithersburg, Maryland. She is assisting in selecting the panel. At this time there is a possibility of securing live coverage for this program from WNVN-TV, Channel 53, at the Northern Virginia Community College.

The use of Cable TV should be investigated for educational programs. It is available in certain areas of the state and being planned in others. By this media, programs can benefit the entire State at little expense to coordinators.

The Dietitians are also helping plan a nutrition program for elementary school children. Rats will be fed specific diets, one of which will be the lunch from the school cafeteria. This five week project will be held in the fall.

In October the Woman's Auxiliary and The Medical Foundation of the Arlington County Medical Society sponsored a panel discussion for the community on DEPRESSION IN

WOMEN. The response to this was evidence that people wanted to understand depression, including women under age thirty, and that the public wanted physician participation in these programs. The panel discussion was moderated by a Family Systems Psychiatrist. The other panel members included an obstetrician-gynecologist who discussed the Physiology of Depression; another Family Systems Psychiatrist who discussed the Effects of the Depressed Woman in Family Relationships; and the Chief of Research in Statistics, Women's Bureau, Department of Labor who discussed Some Alternatives to Depression. Following the discussion, written questions were submitted by the audience and discussed by the panel.

Some doctors are placing copies of this program in their offices for anyone interested and finding them disappearing. The University of Virginia School for Continuing Education, Northern Center, has ordered 125 copies for their Nurses' Spring Seminar on Mental Health. The Northern Virginia Dietetic Association has requested a physician to discuss more in detail the Effects of Sodium in the Diet in relation to depression. This program will be a credit course for dietitians. Since there was much response to this topic, the Arlington County Auxiliary is having a WORRY-IN next fall. Those attending this will be assigned to discussion groups led by physicians.

An art historian is researching ART AND DEPRESSION and a 25 minute slide presentation will be available for community programs in February.

All of these programs are involved with other organizations in the community. These groups were delighted to have the interest of the Doctor's wives. This is a small investment in public relations in a time when our husbands are offering the best in medical care, while at the same time are subject to growing criticism.

MRS. CHARLES G. SMITH  
*Chairman, Health Education*

### **Abortions, Fallacies and Pitfalls**

**T**HE INCREASING LIBERALIZATION of abortion laws has raised serious questions in the medical community. Some of the premises involved in the changing attitudes towards terminating pregnancies have to be examined.

The concept that abortion is only a matter between the physician and the mother, without involving either the father or society at large, has been widely accepted but is open to challenge. Certainly the fetus is not an integral part of the mother but rather has a host-parasite relationship to her. Thus the idea "that a woman has the right to dispose of part of herself" is completely fallacious, and society must assume responsibility for the unborn human. The argument that the overwhelming population explosion in the United States justifies easy abortions, falls down when we study the results of the last census, which prove that the population of America is barely increasing by one per cent a year.

Next, the point, which is frequently made, that unwanted children do not find a useful place in society must be refuted on two counts. Primarily, society cannot exterminate human life only on the basis of merit or suitability, or else Hitlerian principles of eliminating "undesirables" such as Jews, Gypsies, Poles, etc., would become the norm. Secondly, many an "unwanted" child has become a very happy and useful citizen, either by acceptance from his natural mother or by adoptive processes.

Thus, while not denying truly medical indications for abortion, such as incest, rape or serious damage to the mother's health, we believe that abortion purely on the mother's whim would represent a grave challenge to our respect for human life, as expressed by those Judeo-Christian principles which have sustained our society over the centuries.

W. L. WEYL, M.D.

### **The "Zero Draft Environment"**

**E**VER SINCE THE END OF WORLD WAR II a group of civilian physicians have met each fall in Washington to hear about the current status of medicine in the Armed Services. It is a pleasant break from the usual routine of day-to-day practice and an opportunity to learn about the many medical problems that arise in time of war and the various methods that have been developed to deal with them. The civilian physicians have learned much from the meetings that has proved to be of value in their practices. The



consultants on the other hand have aided the military by suggesting and implementing teaching programs for the younger medical officers.

The number of warfare casualties have fortunately sharply lessened during the past year and no movies or talks dealing with clinical matters were given this November. But the ending of the draft has posed a new set of problems in military and medical circles. A volunteer army will require concessions and benefits in order to induce young men, and especially recent medical graduates, to enter the services on either a temporary or permanent basis. All of the speakers at the meeting dealt with various aspects of this problem.

These topics did not prove as exciting or stimulating as in former conferences, and at times the writer found his mind wandering from the subject at hand. He became increasingly aware of sophisticated clichés that had found their way into the language of virtually all of the medical officers on the program. The governmental releases have been guilty of a gobbledygook all their own for years, but this is a relatively new development in medical circles.

In an effort to determine just how all-pervasive this had become the writer made notes of a few of the more outstanding examples during a 15 minute address by an Army medical colonel. His opening remarks were directed to changes that will result from the new *zero draft environment*. He really meant the new volunteer army. There were several references to *health delivery skills* and one *measured skill to measured target*. *Walk-in patients* added to already *high intensity problems*. There were two *overkills* but only one *input*. *The expanding role of the nurse and the technician* appeared reasonable but the *functioning spectrum* that immediately followed was disturbing.

The writer had been aware of *higher and lower skill levels* for years but never had they been so tersely put. *Stressful needs* requiring a *surveillance approach* were thought-provoking. *Professional directorates*, *resource categories* and *team effort activities* were taken in stride. *Skill levels*, *skill entities* and *high intensity skills* all surfaced together. In closing we were left with *decision making processes* and *operating sophistication*. There were a number of other notable examples but they crowded so rapidly on each other that it was impossible to record them all for posterity.

Following the colonel's address it was a relief to hear from Richard S. Wilbur, M.D., Assistant Secretary of Defense (Health and Environment), who spoke on "Progress Since the Last Meeting". He used old-fashioned conversational English that came through clear and understandable. It was a pleasure to hear him and there was no need for a glossary. Perhaps he had not been in the Department of Defense long enough to become contaminated but it was nicer to believe that he simply was not bucking for a promotion.

H. J. W.

## **Calendar of Events**

- STONEBURNER LECTURE SERIES—"CLINICAL UROLOGY 1973"—Sponsored by Division of Urology, Medical College of Virginia—Richmond—February 22-23, 1973.
- LAW INSTITUTE ON HOSPITALS AND MEDICINE—Sponsored by Department of Legal Medicine and Health and Hospital Administration, Medical College of Virginia—Richmond—March 9, 1973.
- NORFOLK GENERAL HOSPITAL—Annual Medical Symposium—GI Bleeding, Scientific Writing, Infectious Diseases, Medical Genetics and Sex Counseling and Medical Economics—Norfolk—March 9-10, 1973.
- NATIONAL CONFERENCE ON RURAL HEALTH—Statler Hilton Hotel—Dallas, Texas—March 29-30, 1973.
- TRI-STATE MEDICAL ASSOCIATION—Annual Convention—Charleston, South Carolina—March 29-April 1, 1973.
- PEDIATRICS DAY—Sponsored by Department of Pediatrics, Medical College of Virginia—Richmond—April 6, 1973.
- SPRING REFRESHER COURSE FOR SPECIALISTS—Sponsored by Gill Memorial Eye, Ear, Nose and Throat Hospital—Hotel Roanoke—Roanoke—April 15-18, 1973.
- JOINT COMMISSION ON ACCREDITATION WORKSHOP—Sponsored by Virginia Hospital Association and The Medical Society of Virginia—Sheraton Inn, Military Circle—Norfolk—April 17, 1973.
- MEDICAL ETHICS—National Conference sponsored by Judicial Council of American Medical Association—Washington Hilton Hotel—Washington, D. C.—April 26-28, 1973.
- VISITING PROFESSOR IN INFECTIOUS DISEASES—Sponsored by Departments of Medicine, Microbiology, Pathology, Pediatrics and Division of Infectious Diseases of the Medical College of Virginia—Richmond—May 7-8, 1973.
- VIRGINIA HEART ASSOCIATION—Scientific Sessions for Physicians—Sheraton Motor Inn—Fredericksburg—May 22-24, 1973.
- SPRING FORUM FOR CHILD PSYCHIATRY—Sponsored by Virginia Treatment Center for Children and Division of Child Psychiatry, Medical College of Virginia—Richmond—May 25, 1973.
- ANNUAL ORTHOPEDIC RESIDENTS PAPERS—Sponsored by Division of Orthopedic Surgery—Medical College of Virginia—Richmond—June 1, 1973.
- AMERICAN ELECTROENCEPHALOGRAPHIC SOCIETY—Annual Meeting—Statler Hilton Hotel—Boston, Massachusetts—June 15-16, 1973.
- AMERICAN MEDICAL ASSOCIATION—Annual Meeting—New York—June 23-28, 1973.

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The Medical Society of Virginia maintains a registry of medical meetings and programs of interest to Virginia physicians. You can help by keeping us advised of any meetings scheduled in your area. This will not only help others avoid conflicts but also provide helpful information on opportunities for continuing education.



*"The history of science, and in particular the history of medicine... is... the history of man's reactions to the truth, the history of the gradual revelation of truth, the history of the gradual liberation of our minds from darkness and prejudice."*

*— George Sarton, from "The History of Medicine Versus the History of Art"*

**Are combination drug products useful in treatment involving concomitant use of two or more drugs?**

**Opinion**

**Results of a questionnaire to 7,000 physicians:**

**62.9%**

**Believe combination drug products are useful.**

**13.8%**

**Do not believe combination drug products are useful.**

# Are combination drug products useful in treatment involving concomitant use of two or more drugs?

## Opinion & Dialogue

### Doctor of Medicine

Louis Lasagna, M.D.  
Professor and Chairman  
Department of  
Pharmacology & Toxicology  
University of Rochester  
School of Medicine  
and Dentistry



Obviously, many drugs are given concomitantly. Whether it makes sense to combine medications in one preparation, be it capsule, tablet, or liquid, is a question that can be answered only by examining the advantages and disadvantages in the individual case.

Among the advantages is, first of all, convenience. The more medications that are taken concurrently and the more complicated the directions, the less likely the patient is to take medications accurately. From the standpoint of convenience and accuracy, and economy as well, you can make an important case for putting medications together in one preparation, as long as they are compatible.

By the same token, when you prescribe a properly tested and rational combination, you should have less worry about pharmaceutical or pharmacological compatibility — and about reasonable dosage ratios as well. Compatibility of the formulation should be demonstrated in the laboratory and clinic before the product is available for prescription—which is more than can usually be said for

the physician's own spontaneous creations. And, the dosage ratios employed in rational precompounded combinations are designed to meet the needs of substantial numbers of "typical" patients.

There is no doubt that many "atypical" patients are to be found, and for them the prefabricated combination must be rejected. But that hardly argues for eliminating rational combinations from the market. Think, for example, of the problems that would arise if the components of widely accepted combinations, like the oral contraceptives and the diuretic-antihypertensives, always had to be prescribed, purchased and ingested separately.

One disadvantage that comes to mind is some doctors' unawareness of the ingredients a given combination contains. For example, a doctor might know that a patient is allergic to aspirin but forget that a certain analgesic mixture, which he knows only by its trade name, contains aspirin. His prescription, then, causes considerable discomfort, to say the least. This problem is a function of physician education, rather than of combination therapy as such. Improving doctors' knowledge about all medicaments they prescribe is a problem that deserves tackling on its own.

Another accusation leveled at combination drugs is that they encourage sloppiness of diagnosis and treatment. In many cases, however, a combination may prove to be the most effective choice. A good ex-

ample of the usefulness of combinations appears in a recent article in the *Journal of Chronic Diseases* on the efficacy and side effects of an antihypertensive containing three ingredients, in which the track records of the combination drug and the individual ingredients were compared. Interestingly enough, whether the drugs were given individually or together, incidence and severity of side effects were the same. But blood pressure control was invariably better when the drugs were taken in one combination tablet than when they were taken separately (in "titratable" dosage) or in two or three different tablets.

Deciding which combinations constitute rational therapy obviously leads to a discussion of who is to determine which should be used and which should not. Realistically, I think combinations should be evaluated somewhat differently if they are old and established or new and untried.

In today's regulatory atmosphere, there is no possibility of a new combination being put on the market without a substantial amount of acceptable evidence in the form of controlled trials that show it to be safe and efficacious. On the other hand, I believe a different set of standards should apply to combination preparations that have been around for a long time. In other words, physician acceptance over a long period should be given some weight as evidence of the efficacy and safety of these drugs.

The FDA, however, does not seem to share this attitude. It often requires, for these older products, controlled trials that will monopolize the time of already overtired investiga-

tors and cost a great deal of money. I wish we could agree on a "grandfather clause" approach to preparations that have been in use for a number of years and that have an apparent satisfactory track record.

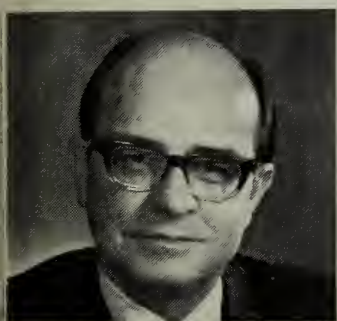
For example, I think some of the antibiotic combinations that were taken off the market by the FDA performed quite well. I am thinking particularly of penicillin-streptomycin combinations that patients—especially surgical patients—were given in one injection. This made for less discomfort for the patient, less demand on nurses' time, and few opportunities for dosage errors. To take such preparation off the market doesn't seem to be good medicine, unless actual usage showed a great deal of harm from the injection (rather than the proper use) of the combination.

The point that should be emphasized is that there are both rational and irrational combinations. The real question is, who should determine which is which? Obviously, the FDA must play a major role in making this determination. In fact, I don't think it can avoid taking the ultimate responsibility, but it should enlist the help of outside physicians and experts in assessing the evidence and in making the ultimate decision.



# Maker of Medicine

W. Clarke Wescoe, M.D.  
President  
Winthrop Laboratories



If two medications are used effectively to treat a certain condition, and it is known that they are compatible, it clearly is useful and convenient to provide them in one dosage form. It would make no sense, in fact it would be pedantic, to insist they always be prescribed separately. To avoid the appearance of pedantry, the "expert" decries the combination because it is a fixed dosage form. When the "expert" invokes the concept of fixed dosage form he obscures the fact that single-ingredient pharmaceutical preparations are also fixed dosage forms. By a singular semantic exercise he implies a pejorative meaning to the term "fixed dose" only when he uses it with respect to combinations. What is ignored is the simple fact that only in the rarest of circumstances does any physician attempt to titrate an exact therapeutic response in his patient. It is quite possible that some aches and pains will respond to 500 mg. of aspirin yet that fact does not militate against the usual dose being 650 mg.

The other semantic ploy often called into play is to describe a combination product as rational or irrational.

Take antibiotic mixtures, the source of much of the criticism generated against

combinations generally. Obviously, no one should be exposed willy-nilly to the potential side effects of two or three antibiotics when only one is needed. At the same time there are cases where it is prudent to prescribe more than one. The clinician is the judge in these circumstances, as he should be.

There is no clear definition of the word rational. Most persons, I suppose, would find it synonymous with reasonable, but in many circumstances it may best be defined as the opinion of those in power at the moment.

Other factors govern combination therapy, not the least of which has been its broad use by practicing physicians anxious to achieve convenience in prescribing, to reduce medication error, and to save money for their patients. Combinations clearly have met the test on all three counts.

I have been impressed by studies showing that the rate of error climbs markedly with the number of medications to be taken, even with sophisticated patients. When medically justified, therefore, this factor alone supports the logic of combination therapy.

The cost argument for combinations appears to be irrefutable. In 1971, R. A. Gosselin studied the 71 combination products (excluding oral contraceptives) among the 200 most prescribed drugs. The study found that if all 71 products were discontinued, and if each ingredient in these combinations were prescribed separately, the price of medicines to patients would jump by \$443.2 million on a national basis! At a time when the cost of medical care is under so much fire, it would be nonsensical to boost costs without clearly irre-

futable medical reasons.

The part played by government on this question, of course, is fundamental. The FDA should play a role in determining which combinations are reasonable. That role, as defined by law and regulation, is to ensure that any medication on the market is safe and effective in line with its label claims. Certainly combinations are entitled to as much consideration as single entities—neither more nor less. So long as the addition of one drug to another does not make either less safe, or less effective, so long as they are compatible in a formulation, we have a reasonable product. It makes no sense to recommend the use of two products for certain conditions and to deny their being combined in a single form. An unhappy side effect of the problem concerns the efficacy panel discussions of many products submitted for review. The term "effective, but" has been freely interpreted to mean "ineffective" in toto, regardless of the merit of the individual drugs. This interpretation has placed numerous useful combination products in needless jeopardy.

In reading the actual reports of the review panels, it seems clear that some of the ratings were based less on scientific research and clinical observation than on the "informed" opinions of the panelists. These "informed" opinions were accepted at face value, while

the "informed" opinions of others who had used the products were rejected. All of this put combination products into a sort of scientific never-never land.

It should be kept in mind by all, government as well as others involved in our health care system, that advances in therapy are seldom made in leaps and bounds but rather by small painstaking steps—and that some of these steps have resulted from research in combination drugs as well as with single entities. Given the near-infinite biologic variation in patient response, this is hardly surprising to clinicians. It should not be to regulatory agencies either.

In the end, the practicing physician is in the best position to decide if a particular combination makes sense. Such a decision should not be made exclusively by those whose responsibility for continuing clinical care is limited. Clinicians are the best judges of efficacy because the ultimate proof of any product's effectiveness is acceptance by physicians who have observed its actions in patients over time. The corollary statement may be made about over-the-counter medicines, which would not long survive if they failed to afford the relief the user anticipates. That the antihistamine in a "cold" remedy may not *always* be necessary is no reason to proscribe the combination generally.

## Opinion & Dialogue

What is your opinion, doctor?

We would welcome your comments.



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## MINOCIN® made the difference in just eight days.\*

### Clinical Data:

**Patient:** 47-year-old male.

**Diagnosis:** Severe pyoderma, left hand.

**Culture:** *Staphylococcus aureus*, coagulase positive and sensitive to MINOCIN.

**Temperature:** 102° F

**Therapy:** MINOCIN Minocycline HCl Capsules, 100 mg: 200 mg *stat*, 100 mg every 12 hours. Medication began 9/7/71. By fourth day, temperature was normal and pustular lesions considerably improved. Last dose taken 9/14/71.

**Concomitant therapy:** None.†



**Indications:** For the treatment of susceptible infections; e.g., *E. coli*, *D. pneumoniae*. For full list of approved indications consult labeling.

**Contraindications:** Hypersensitivity to any tetracycline.

**Warnings:** The use of tetracyclines during tooth development (last half of pregnancy, infancy and childhood to the age of 8 years) may cause permanent discoloration of the teeth (yellow-gray-brown). This is more common during long-term use but has been observed following repeated short-term courses. Enamel hypoplasia has also been reported. Tetracyclines, therefore, should not be used in this age group unless other drugs are not likely to be effective or are contraindicated. In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, use lower total doses, and, in prolonged therapy, determine serum levels. Photosensitivity manifested by an exaggerated sunburn reaction has also been observed in some individuals taking tetracyclines. Advise patients apt to be exposed to direct sunlight or ultraviolet light that such reaction can occur, and discontinue treatment at first evidence of skin erythema. Studies to date indicate that photosensitivity does not occur with MINOCIN Minocycline HCl. In patients with significantly impaired renal function, the antianabolic action of tetracycline may cause an increase in BUN, leading to azotemia, hyperphosphatemia, and acidosis. CNS side effects (lightheadedness, dizziness, vertigo) have been reported, may disappear during therapy, and always disappear rapidly when drug is discontinued. Caution patients who experience these symptoms about driving vehicles or using hazardous machinery while taking this drug. **Pregnancy:** In animal studies, tetracyclines cross the placenta, are found in fetal tissues, and can have toxic effects on the developing fetus (often related to retardation of skeletal development). Embryotoxicity has been noted in animals treated early in pregnancy. Safety of use during human pregnancy has not been established. **Newborns, infants and children:** All tetracyclines form a stable calcium complex in any bone-forming tissue. Prematures, given oral doses of 25 mg./kg. every 6 hours, demonstrated a decrease

in fibula growth rate, reversible when drug was discontinued. Tetracyclines are present in the milk of lactating women who are taking a drug of this class.

**Precautions:** Use may result in overgrowth of nonsusceptible organisms, including fungi. If superinfection occurs, institute appropriate therapy. In venereal diseases when coexistent syphilis is suspected, darkfield examination should be done before treatment is started and blood serology repeated monthly for at least four months. Because tetracyclines have been shown to depress plasma prothrombin activity, patients on anticoagulant therapy may require downward adjustment of such dosage. Test for organ system dysfunction (e.g., renal, hepatic and hemopoietic) in long-term use. Treat all Group A beta hemolytic streptococcal infections for at least 10 days. Avoid giving tetracycline in conjunction with penicillin.

**Adverse Reaction:** GI: (with both oral and parenteral use): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in anogenital region. **Skin:** maculopapular and erythematous rashes. Exfoliative dermatitis (uncommon). Photosensitivity is discussed above ("Warnings"). **Renal toxicity:** rise in BUN, dose-related (see "Warnings"). **Hypersensitivity reactions:** urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus. In young infants, bulging fontanels have been reported following full therapeutic dosage, disappearing rapidly when drug was discontinued. **Blood:** hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia. **CNS:** (see "Warnings.") When given in high doses, tetracyclines may produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

**NOTE: Concomitant therapy:** Antacids containing aluminum, calcium, or magnesium impair absorption; do not give to patients taking oral minocycline. Studies to date indicate that absorption of MINOCIN is not notably influenced by foods and dairy products.

\*Indicated in infections due to susceptible organisms. Culture and sensitivity testing recommended. Tetracyclines are not the drugs of choice in the treatment of any staphylococcal infection. †Case Report, Clinical Investigation Department, Lederle Laboratories.



## New Members.

The following members were received into The Medical Society of Virginia during the month of November:

Jesse Francis Amos, M.D., Rocky Mount  
John R. Anderson, M.D., Roanoke  
Elmer C. Bigley, Jr., M.D., Alexandria  
Patrick Declan Burke, M.D., Culpeper  
Mary D. Colony, M.D., Falls Church  
Mixon Milford Darracott, M.D., Staunton  
Donald Irvin Davis, M.D., Alexandria  
Jachin Boaz Davis, M.D., White Stone  
Wirt Lee Davis, M.D., Richmond  
Andrew Anthony DelSordo, M.D.,  
Richmond

Larry Charles Fried, M.D., Richmond  
Harold Louis Goldman, M.D., Richmond  
Humberto Gomez, M.D., Richmond  
Roberto K. Greenlaw, M.D., Earlysville  
Randolph M. Halloran, M.D., Richmond  
Norman S. Harris, M.D., Lynchburg  
Hugh Richard Howell, M.D., Richmond  
Grisha Jarandeh, M.D., Alexandria  
George Kriegman, M.D., Richmond  
John Robert Lacey, M.D., White Stone  
John Dennis Landis, M.D., Front Royal  
Frank Smith Mancuso, M.D., Portsmouth  
Augusto Julio Martinez, M.D., Richmond  
Edward D. Martirosian, M.D., Richmond  
Clifton L. Parker, M.D., Richmond  
Franklin Jay Pepper, M.D., Alexandria  
David Nelson Pfohl, M.D.,  
Washington, D. C.

S. Jaikar Rao, M.D., Richmond  
Joseph Michael Rizza, M.D., Richmond  
Max Bernard Rubin, M.D., Annandale  
Roman Sachno, Jr., M.D., Staunton  
Henry K. Silberman, M.D., Richmond  
Laszlo C. Steingaszner, M.D., Woodbridge  
John Aldrich Stephenson, M.D., Lynchburg  
S. Dawson Theogaraj, M.D., Richmond

## Alexandria.

Officers for the new year of the Alexandria Medical Society are: President, Dr. Harry Kuykendall; president-elect, Dr. Ira Green; vice-president, Dr. Richard Redding; secre-

tary, Dr. Alan Deutsch; and treasurer, Dr. Harold Berman.

## Dr. Theodore E. Keats,

Chairman of the Department of Radiology of the University of Virginia School of Medicine, has been named one of 16 trustees of the American Board of Radiology. As a trustee, he will be responsible for examining prospective specialists in radiology and certifying their competence in the field.

## Dr. George E. Ewart,

Richmond, has been named chief of staff of McGuire Veterans Administration Hospital. He has been a member of the staff since 1946 and chief of the pulmonary disease section since 1960.

Dr. Ewart is a member of the board of directors of the Richmond Area Tuberculosis and Respiratory Disease Association and president of the Virginia Thoracic Society.

## Dr. Ronald A. Apter,

Arlington, has been granted Fellowship in the American College of Cardiology.

## Mrs. W. Nash Thompson,

Stuart, has been installed as president-elect of the Woman's Auxiliary to the Southern Medical Association. She was elected at the annual meeting in New Orleans in November.

## New Association in Practice.

Drs. Horton, Adamson and Mladick, Norfolk, announce the association of Dr. James H. Carraway in the practice of plastic and reconstructive surgery, asthetic surgery and surgery of the hand.

## Swineford Allergy Conference.

The twelfth annual Swineford Allergy Conference will be held at the University of Virginia Medical Center on April 27th. The conference will begin at 9:30 A.M. and will last

all day. The subject will be Asthma in Children.

All interested physicians are invited.

### **New Medical School to Get Grant.**

The Eastern Virginia Medical School, Norfolk, has been selected for its first national foundation grant of \$1,000,000.00 from the Andrew W. Mellon Foundation.

### **William R. Whitman Memorial Lecture.**

The Sixth Annual Memorial Lecture of the The Lewis-Gale Medical Foundation, Roanoke, was held on October 4th. The Lecture was given by the medical faculty of Bowman Gray School of Medicine, Wake Forest University. The subjects presented were on

The 1973 Lecture will be given by the fac-

ulty of the School of Medicine, University of Virginia.

"What's New at Bowman Gray School of Medicine in 1972" and the following members of the faculty participated: Dr. M. Robert Cooper on Hematology; Dr. Archie Johnson on Neonatology and Pediatrics; Dr. Emery C. Miller on Endocrinology; and Dr. Clark E. Vincent on Human Behavior.

### **Emergency Room Physician.**

Wanted for 351 bed community hospital; southwest Virginia and Upper East Tennessee area. Tennessee license required. Present group of four physicians expanding to five. \$30,000 plus annually and liberal benefits. Write or call Executive Director, Bristol Memorial Hospital, Bristol, Tennessee 37620. Phone 615-968-1121. (*Adv.*)

## **Obituary . . . .**

### **Dr. Charles Lydon Harrell,**

Norfolk, a past president of The Medical Society of Virginia, died November 13, 1972, having been in ill health for some years. He was eighty-nine years of age and received his medical education at the former University College of Medicine, Richmond, graduating in 1909.

Dr. Harrell was one of the pioneer internists in the Norfolk area. From the beginning of his medical career he had been particularly interested in tuberculosis and diseases of the chest. He assisted in pioneer free clinic work in Tidewater Virginia, was medical director of the Tidewater Victory Memorial Hospital (tri-county tuberculosis) during its lifetime and had been in charge of the Tuberculosis Unit of the Norfolk General Hospital since its organization.

Dr. Harrell had been active in the work of The Medical Society of Virginia, having served as a vice-president, member of Council and chairman of the Tuberculosis Committee.

In 1950, he was installed as President of the Society. He was also president of the Norfolk County Medical Society, the Seaboard Medical Society and a past governor of the area chapter of the American College of Physicians. Dr. Harrell was also governor of the Virginia Chapter of the American College of Chest Physicians.

He is survived by four sons, one of them being Dr. Gordon Harrell also of Norfolk.

### **Dr. James Davis Hagood,**

Clover, a past president of The Medical Society of Virginia, died December 23. He was eighty-three years of age. Dr. Hagood graduated from the former University College of Medicine, Richmond, in 1911. He began his practice in Scottsburg, later moving to Clover, both in Halifax County.

Dr. Hagood retired in 1971 as president pro tempore of the Virginia Senate, following months of declining health. He was chairman of the Finance Committee and a member of



# The Rx that says "Relax"

**BUTISOL Sodium provides highly predictable sedative effect:** minor dosage adjustments are usually all that's needed to produce the desired degree of sedation. (With 3 dosage forms and 4 strengths to make adjustments easy.)

**BUTISOL Sodium offers prompt, smooth, relatively non-cumulative action:** begins to work within 30 minutes...yet, because of its intermediate rate of metabolism, generally has neither a "roller-coaster" nor a "hangover" effect.

**BUTISOL Sodium is remarkably well tolerated:** a 30-year safety record assures you that there is little likelihood of unexpected reactions.

**BUTISOL Sodium saves your patients money:** costs less than half as much as most commonly prescribed sedative tranquilizers.\*

These are four good reasons for prescribing BUTISOL Sodium for the many patients who need to have the pace set just a little slower. Its gentle daytime sedative action is often all that's needed to help the usually well-adjusted patient cope with temporary stress.

\*Based on surveys of average daily prescription costs.



**Butisol** SODIUM<sup>®</sup>  
(SODIUM BUTABARBITAL)

**Contraindications:** Porphyria, sensitivity to barbiturates, or susceptibility to dependence on sedative-hypnotics.

**Warning:** May be habit forming. **Precautions:** Exercise caution in: moderate to severe hepatic disease; withdrawal in drug dependence or the taking of excessive doses over a long period, to avoid withdrawal symptoms; elderly or debilitated patients, to avoid possible marked excitement or depression; use with alcohol or other CNS depressants, because of combined effects. **Adverse Reactions:** Drowsiness at daytime sedative dose levels, skin rashes, "hangover" and gastrointestinal disturbances are seldom seen. **Usual Adult Dosage:** For daytime sedation, 15 mg. to 30 mg. t.i.d. or q.i.d. For hypnosis, 50 mg. to 100 mg. **Available as:** Tablets, 15 mg., 30 mg., 50 mg., 100 mg.; Elixir, 30 mg. per 5 cc. (alcohol 7%), BUTICAPS<sup>®</sup> [Capsules BUTISOL SODIUM (sodium butabarbital)] 15 mg., 30 mg., 50 mg., 100 mg.

**McNEIL**

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the Privileges and Elections and General Laws Committees.

Dr. Hagood was formerly a member of the Board of Visitors of the Medical College of Virginia and was awarded in 1950 the honorary degree of Master of Science in General Practice by the College. He was one of the founders and an early president of the Virginia Academy of General Practice. In 1948 Dr. Hagood was named the outstanding general practitioner of the year by The Medical Society of Virginia. He was installed as president of the Society in 1956. He had served as chairman of the Legislative Committee of the Society for many years. Dr. Hagood also served as president of the Halifax County Medical Society and was a past president and founder of the Patrick Henry Boys Home. He served on the staff of the Halifax County Community Hospital.

Dr. Hagood is survived by his wife, a son, a step-son and a step-daughter.

#### **Dr. Grant Roosevelt Elliott,**

Richmond, died December 20, at the age of seventy-two. He was a graduate of the Medical College of Virginia in 1931 and of the School of Aviation Medicine in Texas in 1942. Dr. Elliott began his practice in Orange County and entered the military service in 1941. He served with the 8th Air Force in England as a flight surgeon during World War II. Dr. Elliott became affiliated with McGuire VA Hospital in 1946 and served until his retirement in 1964. He was a member of The Medical Society of Virginia, having joined in 1934.

His wife, a son and a daughter survive him.

#### **Dr. O'Neal.**

On November 9, 1972, the Medical Staff of Southside Community Hospital and the commu-

nity of Amelia lost a valued friend and respected colleague.

Dr. James Talton O'Neal was born in Mt. Airy, North Carolina, and his parents moved to Amelia County in 1910. His pre-medical training was at the University of Virginia and the University of Richmond. He graduated from the Medical College of Virginia in 1935. In 1939 Dr. O'Neal began his medical practice in Amelia C. H. continuing until his final illness, interrupting it only for active duty with the Army from February 1941 to October 1945. His professional associations included the State and National Medical Societies and the visiting staffs of the Southside Community Hospital in Farmville and Grace Hospital in Richmond. He performed outstanding services in the obstetrical departments in these two hospitals with a total tally of more than 1500 deliveries for families in his practice. His outstanding assistance in public health work was saluted by Dr. Mack Shanholtz at a testimonial meeting in Amelia on September 24, 1972, honoring Dr. O'Neal for 30 years of service to the people of that county. Particular reference was made at this testimonial to his work in the maternal child health clinic for the Amelia Health Department which began in June 1955. Dr. O'Neal was respected by his colleagues as one who was dedicated to the highest principles of medical practice. He was noted to pursue energetically the opportunities offered for post-graduate studies of recent medical advances which might otherwise have passed him by in the setting of a rural medical practice. His busy practice did not prevent Dr. O'Neal from participating actively in a variety of non-medical organizations in his community including the Baptist Church, Masonic Lodge, Golf and Country Club, Ruritan Club and charter membership of the Amelia Lions Club.

The Staff of the Southside Community Hospital wishes to place in its minutes this statement of its sense of loss in the death of Dr. O'Neal and to request a copy be placed in the Farmville Herald and the Virginia Medical Monthly. A copy also is being sent to his widow with the hope that her sadness will be lessened by this sincere expression of our sentiments.

DR. CHARLES SCOTT  
DR. WILLIAM P. TERRY  
DR. RAY MOORE, JR.



### Guest Editorial . . . .

#### An Intercepted Letter

THOMAS J. DELEGATE, M.D.  
Medical Society of Virginia  
1619 Burgess Lane  
Dominion, Virginia 16017

Dear Tom:

**D**O YOU THINK it's likely the Food and Drug Administration (FDA) people are hoping the passing of time will anesthetize our resolution to change their proposed rules regarding the "use of drugs for unapproved indications"?

You may have mislaid the resolution, The Medical Society of Virginia's House of Delegates, adopted in Williamsburg last November so, I've enclosed a copy.

Mr. Willard C. Osburn, the Society's public relations man, mailed it right out and got back an answer November 17, 1972, from a Mr. William Dworkin, an FDA officer. Will sent me a copy of Mr. Dworkin's letter. The first paragraphs contained the usual governmental amenities. The third paragraph contained a courtly assurance, the genuineness of which appeared akin to the solid hand clasp of two gentlemen.

Mr. Dworking wrote Will Osburn this: "Because the matter is still only a proposal, and no final regulation has been issued, it is not possible for us at this time to comment definitely on the questions raised by the resolution. *I can assure you, however, that the regulation is certainly not intended to be prejudicial to physicians in case of malpractice litigation, nor is it intended to interfere in any way with a physician's choice of what he regards as the best treatment for his patient.*" (emphasis mine)

Tom, that's solid enough to cause relaxation in our effort—temporarily. I say temporarily, because after I review the events leading up to the resolution you will agree we must push on.

The notice of this proposed rule making first appeared August 15, 1972, in the *Federal Register*, pages 16503 to 16505. My first knowledge of the FDA's intention came in late September. After wading back and forth in the long columns of fine print from that government paper factory, I felt a protest resolution from the Society's House of Delegates coupled with a similar resolution from the American Medical Association's House of Delegates might bring about a favorable revision of the FDA's proposed rules. However, lack of time was a problem.

The *Federal Register* notice said interested persons could file within 60 days written comments regarding the proposal. Incidentally, your first opportunity (unless you read the *Federal Register*) to learn about this came when the *FDA Drug Bulletin* arrived in October. My copy arrived October 5—just nine days before the first deadline—October 14. The Society's House of Delegates didn't meet until November the 5th and the AMA's House didn't convene until the first week in December. On October the 3rd I wrote the Hearing Clerk requesting a 90-day extension of the October 14th deadline in order to get action from the two medical societies. On October 14th, a Mr. Brandenburg phoned me. He said he was the Acting Associate Commissioner for Compliance, FDA. I've never seen Mr. Brandenburg but he sounded mighty authoritative, proper and firm. He said 30 days was all the time they could allow, because they had to act. I didn't have any better immediate response so I just said, "Yes, Sir," "Thank you, Sir," hung up and wrote the enclosed resolution.

Tom, again, I want to express my appreciation to you for the vigorous support you gave the resolution at the reference committee hearing. I feel you positively influenced the committee to make its strong recommendation for adoption before the Society's House of Delegates.

After Mr. Brandenburg told me they couldn't wait longer than 30 days, I figured an FDA decision was well on the way. Then when Mr. Dworkin made such a forthright statement in his letter to Will Osburn I had hopes the decision would be a favorable one. So I waited six weeks past the second deadline (November 14th), then wrote the Hearing Clerk and asked for the current status of FDA's proposed rules.

On January the 3rd I got a thick envelope from the Feds. It contained four sheets of paper stapled together. The first page contained an unsigned note from Beryl McCullar, Hearing Clerk, that said, "Attached is a copy of the proposal regarding legal status of approved labeling for prescription drugs: prescribing for uses unapproved by the Food and Drug Administration; published in the *Federal Register* August 15, 1972." The next three sheets are copies from the *Federal Register* beginning on page 16503 and ending on page 16505.

Tom, I've gone over this mess again. They haven't changed a thing. And if they don't change it this will become law.

The October 1972 *FDA Drug Bulletin* you and I received softens and reassures us regarding the possibility of being sued and that the Feds will not interfere with the practice of medicine, but that bulletin does not contain the proposed rule change. The proposed rule change that becomes law, if adopted, that appears in the *Federal Register* says, "When an unapproved use of a new drug may endanger patients or create a public health hazard, or provide a benefit to patients or to the public health, the Food and Drug Administration is obligated to take one or more of the following courses of action;" (emphasis mine). The remainder of the proposed regulation outlines a series of increasingly oppressive actions which the FDA says it intends to take against the manufacturer if "the unapproved use of an approved new drug becomes widespread or endangers the public health." Several of these actions if taken against the manufacturer will directly affect the practicing physician.



Tom, all of us in active practice use some drug products in a different manner or dosage than that recommended in the manufacturer's disclosure materials. We have to, we are dealing with sick people, and we have to use drugs the way past experience has indicated to be effective, whether FDA has approved the use or not.

The *Federal Register* is very much a part of our lives whether we like it or not—regulatory law is recorded there. Many of the regulations under which we are forced to live have come about by default on our part. Proposals are recorded in that ponderous tome and if they're left unchallenged they ultimately become law. Proposals are frequently unchallenged because we are not aware of their existence. Six weeks have passed since the last deadline, November 14, 1972, and nothing has been changed. I'm going to write the Hearing Clerk requesting that he write me well in advance of the final decision on proposed rule changes on "Use of Drugs for Unapproved Indications; Your Legal Responsibility".

Tom, let's hang in there.

Sincerely,

W. J. HAGOOD, JR., M.D.

Clover, Va. 22534

Enc: Resolution on Proposed FDA Regulations

RESOLUTION SPONSORED BY HALIFAX COUNTY  
MEDICAL SOCIETY AND ADOPTED BY THE  
HOUSE OF DELEGATES

Williamsburg, November 1972

RE: PROPOSED FDA REGULATIONS

WHEREAS, The proposed rule change by the Food and Drug Administration titled, "Legal Status of Approved Labeling for Prescription Drugs; Prescribing for Uses Unapproved by The Food and Drug Administration", may seriously damage the physician's ability to care for his patient, because this proposed rule outlines a series of increasingly oppressive actions which the FDA says it intends to take against the manufacturer "when an unapproved use of a new drug may endanger patients or create a public health hazard, *or provide a benefit to patients or to the public health*" (italics added). It is reasonable to expect subsequent penalties may be visited upon any offending physician, and

WHEREAS, The proposed rule would force a physician to decide whether to break the law or not to break the law and thereby assume a greater medico-legal liability, when faced with a choice to use or not to use a drug for an "unapproved" use on a patient when he *knows* from his clinical experience the drug would benefit his patient, and

WHEREAS, The proposed rule does not require a physician to file with the FDA an investigational new drug application in order to lawfully prescribe a drug for an "unapproved" use, the preamble contains wording which could be used by plaintiffs' attorneys in efforts to increase the potential liability involved in such prescribing; therefore, be it

RESOLVED, The Medical Society of Virginia is opposed to the proposed rule change, titled, "Legal Status of Approved Labeling of Prescription Drugs; Prescribing for Uses Unapproved by the Food and Drug Administration", Federal Register, Volume 37, No. 158—Tuesday, August 15, 1972, because it exceeds the authority of the Food, Drug & Cosmetic Act in that it interferes with the practice of medicine, and

RESOLVED, The FDA respectfully be advised to consult the American Medical Association if it believes this subject is of such importance that some ruling must be made in order to improve the quality of medical care in the United States, and

RESOLVED, A copy of this resolution be sent to the Hearing Clerk of the Department of Health, Education and Welfare, the Senators and Congressmen from Virginia and the President of the American Medical Association.

## A Query to Radiotherapists

**A**LTHOUGH much has been learned about the response of tumors to irradiation there are many factors about the various lesions and host response which complicate and prevent an exact prognosis for any one neoplasm or patient.

As a clinician (oral surgeon), I have seen lesions with similar histopathology respond differently to irradiation administered by competent radiotherapists. As a result, I have studied some factors seemingly important for tumor response to irradiation. Some of the factors include anatomical site; for example lymphopoietic and hematopoietic pathology respond much more favorably than connective tissue lesions. It is general knowledge that neoplasms which are highly anaplastic or poorly differentiated appear to be more radiosensitive than the well differentiated neoplasm. Still another factor with great importance with respect to radiosensitivity of a tumor is its vascularity and availability of oxygen to the malignant neoplastic cells. Current means employed to increase oxygen tension include atmospheric oxygen breathing with 5% carbon dioxide, hyperbaric oxygen breathing, hydrogen peroxide perfusion and the concomitant use of hydroxyurea and irradiation especially in the treatment of advanced epidermoid cancer of the head and neck.

Some authors (Lerner, Harvey J., et al.) have prescribed orally in dosages 80mg/per kg of bodyweight hydroxyurea every third day for one week. After this regimen, irradiation follows three times a week for a period of six to ten weeks. In this study, out of sixty patients with advanced epidermoid cancer of the head and neck, forty-eight showed complete regression of the primary tumor. Each patient in this series thus became a candidate for surgery after this therapy.

Since oxygenation or the available oxygen tension in and around the malignant cell determines its radiation response, the question arises, why not inject



oxygen directly into the center of the tumor? Intra-arterial infusion and perfusion with oxidizing agents can only extend into the tumor as far as the vascular tree will take it. The center of the cancer is usually the least vascularized and frequently tumors have outgrown their blood supply. This explains why peripheral portions of many tumors respond to radiation quicker and more effectively while cells in the center appear radio-resistant.

In view of the above basic information, would it not be feasible to inject into an accessible local malignancy an oxidizing agent that is known not to contain microorganisms, is actively bactericidal and can be dissolved in 3% carbocaine solution. Aspiration before administration is essential. Such a preparation used by the dental profession as an oral antiseptic and cleanser called "Proxigel" contains carbamide peroxide 11% in a water free gel base. Intra-tumor injection, central portion, of four to eight minims of this oxidizing agent and then about ten minims held in the mouth over the tumor tissue for about five minutes immediately prior to the irradiation treatment could conceivably increase the sensitivity of the neoplasm to the irradiation. The amount of oxidizing agent injected into the center of the tumor would of course depend on the size of the lesion. Perhaps some radioresistant tumors might become radio-sensitive tumors; perhaps the amount of irradiation could be reduced and prevent some of the sequelae of irradiation.

On the oral mucosa "Proxigel" appears non-toxic, non-irritating or sensitizing. "Proxigel" releases microscopic oxygen bubbles.

Most physicians have a justifiable concern of an air embolism. Intravenous medications as well as the injection of local anesthetics are utilized by physicians and dentists daily on thousands of patients. Certainly every effort is made to remove air from the syringe, as well as aspirating, prior to parenteral use of any medication but we must recognize that in spite of all efforts, some air bubbles are entering the body and probably the vascular system. This is likely more true with the use of local anesthetics in the head and neck regions than anywhere else in the body because of the enormous vascularity of this anatomic region. Yet, the number of air emboli seen, though capable of being catastrophic when they do occur, are a most infrequent occurrence.

In the technique described above, protection is afforded in that the oxidizing solution is soluble in a local anesthetic, containing a *vaso-constrictor*: injection being made into a portion of the tumor which has frequently outgrown its blood supply therefore is essentially avascular and can easily be aspirated before final administration.

MARVIN E. PIZER, D.D.S.

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4901 Seminary Road, #107  
Alexandria, Virginia 22311

# Concepts in Mechanical Assisted Ventilation

WALTER J. O'DONOHUE, JR., M.D.  
Richmond, Virginia

**Mechanical ventilation is essential in the management of patients who cannot maintain an adequate tidal volume or minute ventilation. Both pressure-cycled and volume-cycled ventilators may be used in the therapy of respiratory failure. An understanding of the functional characteristics and physiological effects of these ventilators is important for good respiratory care.**

IN RECENT YEARS the use of mechanical assisted ventilation has become increasingly more important in the management of respiratory disease. This is clearly apparent by the rapid growth of Inhalation Therapy services in most hospitals. Although the role of intermittent positive pressure breathing (IPPB) in altering the long-term prognosis of chronic lung diseases is still uncertain,<sup>1</sup> the clinical response to properly administered mechanical ventilation in acute respiratory failure is often dramatic and lifesaving. The therapeutic approach to diseases such as flail chest, acute respiratory distress syndrome of the adult, neuromuscular paralysis, and acute ventilatory failure in chronic lung disease has been completely revolutionized by the use of modern positive pressure respirators.

The indications for positive pressure ven-

tilation are extensive and difficult to define precisely. In general, mechanical ventilation is indicated whenever a patient cannot safely maintain an adequate tidal volume and minute ventilation or when he can no longer tolerate the work of breathing. The aim of therapy is to improve ventilation with minimal disturbance of venous return and cardiac output.<sup>2</sup> Table 1 presents a summation of the indica-

TABLE 1

## INDICATIONS FOR MECHANICAL VENTILATION

1. To substitute for the normal work of breathing
  - a. Central depression
  - b. Muscular weakness
2. To assume an increased work of breathing, as with increased airway or tissue resistance or increased dead space ventilation
3. To change the pattern of ventilation to one more effective in preventing V/Q disturbances (as with rapid, shallow respiration)
4. To stabilize the chest wall after chest trauma
5. To manage pulmonary congestion or edema
6. To improve oxygenation when severe hypoxemia cannot be corrected by other means

tions for assisted ventilation in hospitalized patients with acute or subacute respiratory failure.

## Pressure-Cycled Respirators

Equipment used for assisted ventilation of the lungs has been described and classified in numerous ways.<sup>3,4</sup> The pressure-cycled respirators are those in which the inspiratory phase is terminated when the pressure in the upper airways has reached a preset level.<sup>5</sup> The Bird and Bennett pressure-cycled ventilators are commonly used in most hospitals today. The basic characteristics that are de-

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sirable in the operation of these respirators are listed in Table 2.

TABLE 2

BASIC CHARACTERISTICS OF PRESSURE-CYCLED RESPIRATORS

1. Simple, compact, sturdy and portable
2. Gas source ( $O_2$ , compressed air, or other mixture) at 50 p.s.i. for operation
3. Sensitivity control for cycling on with minimum patient effort (1-1.5 cm. negative pressure)
4. Automatic cycling mechanism for apneic patients or to control respiratory rate
5. Pressure limit control (cm.  $H_2O$ )
6. Ability to compensate for small leaks in the system
7. Regulation of inspiratory flow rate
8. 100% oxygen and air mixing device
9. Humidification of inspired gas
10. Medication nebulizer

One of the important functional considerations of the Bird and Bennett pressure-cycled respirators relates to the pressure-flow characteristics. IPPB produces a reversal of the normal physiological pressure relationships in the thorax. A high mean inspiratory pressure often produces an unfavorable pressure gradient between peripheral veins and right heart which may result in decreased venous return, decreased cardiac output, and hypotension.<sup>6,7</sup> The pressure-flow relationships are also important in considering problems of turbulence of air flow, airway resistance and adequacy of ventilation.<sup>8,9</sup> A specific pressure does not provide a constant tidal volume or a predictable level of ventilation, and the use of a Wright respirometer is most helpful to measure tidal volume and minute ventilation. Arterial blood gases are needed to evaluate overall ventilation.

*Bird Mark 7*

Without air mixture (100%  $O_2$ )—Operates with constant flow throughout inspiration. At the onset of inspiration the flow rises rapidly to its maximum, remains constant during inspiration, and falls rapidly to zero at the end of inspiration.

Air Mixture—Flow rises rapidly to its maximum but does not remain constant, tending to decrease during inspiration with less air

mixing. This results in a higher concentration of  $O_2$  at the end of inspiration than at the beginning.

*Bennett PR-2*

High flow of gas into the lungs at the beginning of inspiration with a progressive reduction in flow rate until the machine cycles off at a critical flow of 1-2 L/min. The flow rate varies automatically with changes in turbulence and airway resistance. This is termed "flow-sensitivity".

With increasing awareness of the dangers from high concentrations of inspired oxygen, it is important to realize that both the Bird and Bennett respirators may be expected to deliver between 50 and 90 percent oxygen on the dilute setting when being driven by oxygen.<sup>10</sup> It is a dangerous misconception to think that these respirators deliver only "40% oxygen". Oxygen toxicity of the lungs and death has been attributed to excessive oxygen from pressure-cycled respirators.<sup>11</sup> The simplest means of alleviating this hazard is to operate the respirator by compressed air at 50 p.s.i. and bleed in additional oxygen at or near the mainstream humidifier or nebulizer. Several other systems for oxygen enrichment of the inspired gas are also available. A portable oxygen analyzer is extremely useful for measuring the actual concentration of oxygen being delivered to the patient.

**Volume-Cycled Respirators**

The volume-cycled ventilators deliver a preset volume of gas to the patient regardless of the pressure required, with the exception that most volume respirators are equipped with a pressure limit control.<sup>12</sup>

The volume-cycled respirators are particularly valuable in treating patients with marked increase in airway resistance or reduced lung compliance when a high inspiratory pressure is required to maintain adequate ventilation. The pressure-cycled respirators are often difficult to use and less effective under these conditions. Because of undesirable pressure-

flow characteristics, a high mean intrathoracic pressure is produced and venous return may be markedly reduced with decreased cardiac output and hypotension resulting. The volume ventilators overcome this problem to a significant degree by improved flow characteristics that provide adequate ventilation with lower mean intrathoracic pressure.

Whenever assisted mechanical ventilation is necessary for more than a few days, the volume ventilator is preferable because it offers many advantages for the prevention and management of potential pulmonary complications. Many of these ventilators will automatically deep breathe or sigh the patient periodically to help prevent atelectasis. The concentration of oxygen can be closely controlled and better regulated. Deliberate hyperventilation is often desirable in the treatment of severe postoperative atelectasis or flail chest. This can be accomplished more efficiently with a volume ventilator and dead space tubing may be added to prevent a marked respiratory alkalosis. Expiratory retard, inflation hold and positive end-expiratory pressure are readily available with various volume ventilators and are useful in providing a more favorable distribution of the inspired gas. This frequently facilitates the management of atelectasis and pulmonary congestion or edema, such as that seen in the traumatic or hemorrhagic wet lung.<sup>13,15</sup>

### **Weaning Patients from the Respirator**

One of the aspects of assisted ventilation that is frequently neglected is the weaning of patients from the ventilator. After the patient has been successfully managed during the acute phase of his illness, improper weaning from the respirator may result in rapid deterioration and reversal of much that has been accomplished previously by good respiratory care. All too often such a patient is said to have become "hooked on the respirator" when, in fact, the fault lies with those who are responsible for his care.

When the process of weaning is begun there are a number of physiologic parameters that

should be considered. If the patient is requiring a high concentration of oxygen, such as 60% or greater, to maintain a low-normal arterial oxygen level on the respirator, then it is predictable that he will usually have trouble without positive pressure ventilation. The patient should also have a near-normal tidal volume off the respirator (as determined by the Radford Nomogram) and, even more important, the vital capacity should be two to three times greater than the tidal volume. With the Wright respirometer these measurements are readily obtained with reasonable accuracy. By correlating these volume measurements one can conclude that if the patient is using most of his vital capacity to maintain a normal tidal volume then the work of breathing is great and early ventilatory fatigue can be anticipated. Observation of the accessory muscles of respiration with the patient breathing without mechanical assistance is also most helpful in judging the work of respiration.

At the time weaning is begun it is preferable for the patient to be triggering the respirator himself rather than being ventilated automatically. The arterial blood gases should be maintained near the level expected for that particular patient when he is in his usual state of health. For instance, it is not reasonable to begin weaning with an arterial oxygen level of 150 mm Hg. in a patient with chronic lung disease who normally lives with an arterial  $pO_2$  of 50 mm Hg. Infection should be under control with secretions thin and non-purulent. One of the common reasons that patients do poorly when taken off the respirator is the presence of uncontrolled respiratory infection, frequently associated with improper humidification of the inspired gas and thick, tenacious secretions.

When the decision has been made to begin weaning, the patient should be taken off the respirator for brief periods of time, such as ten minutes each hour, initially. Usually it is undesirable to continue this during the night hours because the changing of apparatus will awaken the patient twice hourly with no time for sustained rest. It is also critical that ade-



quately oxygenated, heated, humidified gas be delivered to the tracheostomy or endotracheal tube at all times. This can be done with a heated humidifier or nebulizer and tracheostomy mask, collar or T-tube when the patient is off the respirator. After it is observed that the patient is doing well with this regimen, the time off the respirator can be increased gradually by ten minute increments until the patient has reached the point that he is receiving IPPB for only ten to fifteen minutes hourly. Now the endotracheal tube can be removed or the cuffed tracheostomy tube replaced by a smaller, non-cuffed tube that can be plugged. Oxygen may now be given by nasal catheter or cannula and IPPB can be continued for five to ten minutes hourly by mask or mouthpiece. The final step may then be removal of the tracheostomy tube. In most cases it may be desirable to remove an endotracheal tube after only one or two trials off the respirator because of the relative difficulty and discomfort associated with unassisted ventilation through such a tube. Large doses of glucocorticoids for 24 to 48 hours before removing the endotracheal tube may help to reduce laryngeal edema and prevent upper airway obstruction.

Careful consideration of the physiological and technical problems involved in weaning patients from respirators will greatly reduce the trauma for both the patient and the physician. Although the problems related to mechanical ventilation of seriously ill patients demand considerable attention, lack of planning and careful observation later during weaning may lead to disastrous results. Good respiratory nursing care extending throughout the periods of assisted ventilation and weaning is essential for the successful management of acute respiratory failure.

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# Renin Measurements

## Use in Evaluation of the Renal Hypertensive Suspect

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**The renal hypertensive suspect continues to challenge the diagnostic abilities of the clinician. This is a review of renin physiology and a description of how it is applied to a group of renal hypertensive suspects.**

One of the real satisfactions in clinical practice comes from guiding a patient with hypertension through to the point of cure of hypertension by correction of adequately diagnosed renal artery stenosis.

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**WHICH RENAL HYPERTENSIVE SUSPECT** will benefit by an operation designed to cure his hypertension? A satisfactory answer began to evolve after the question was first seriously asked by Homer Smith 24 years ago.<sup>44</sup> Many diagnostic tests have been employed previously. Much recent interest and enthusiasm focuses on the predictive value of plasma renin activity (P.R.A.). Measurements of renal venous renin (R.V.R.) appear to be particularly helpful in identifying the patient with correctable renal hypertension. We herein review renin physiology and describe how we have applied it to a group of renal hypertensive suspects.

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Renin is a proteolytic enzyme with a molecular weight of about 40,000.<sup>24</sup> Its only known activity is to break a specific leucineleucine bond on angiotensinogen (renin substrate), resulting in the formation of Angiotensin I.<sup>41</sup> Renin originates in granular cells surrounding afferent arterioles adjacent to renal glomeruli.<sup>18</sup> These juxtaglomerular cells, along with a few specialized distal tubular cells (macula densa) in the same region, form the juxtaglomerular apparatus. The juxtaglomerular cells are considered by some to be baroreceptors.<sup>46</sup> The macula densa cells are considered by others to be sodium sensors.<sup>13,48</sup> One or both may mediate renin release.<sup>13</sup> Some of the established stimuli for renin release are listed in Table I.

TABLE I

SOME WELL-ESTABLISHED STIMULI FOR RENIN RELEASE:

1. Acute Hemorrhagic Hypotension (17)
2. Salt or Water Depletion, by Dietary Restriction or Diuretics (17,46)
3. Assumption of the Erect Posture (12)
4. Exercise (48)
5. Pregnancy (9)
6. Second Half of Menstrual Cycle (42)
7. Catecholamines (9)
8. Sympathetic Nervous System Activity (6)
9. Ureteral Obstruction (3,48)
10. Acute Oliguric Renal Failure (26)
11. Renal Infarction (35)
12. Functionally Significant Aortic or Renal Artery Stenosis (17,48)

In the systemic circulation, renin liberates the decapeptide Angiotensin I from renin substrate, as depicted in Figure 1. Renin substrate, or angiotensinogen, is an alpha-2 globulin manufactured by the liver.<sup>41</sup> Substrate concentration is lowered by liver disease<sup>39</sup> and elevated by anovulatory drugs.<sup>36,42</sup> Angiotensin I, itself biologically inert, is converted



in the pulmonary circulation<sup>6,7</sup> to the octapeptide Angiotensin II, the most potent pressor substance known. Angiotensin II is also the major stimulus for aldosterone secretion

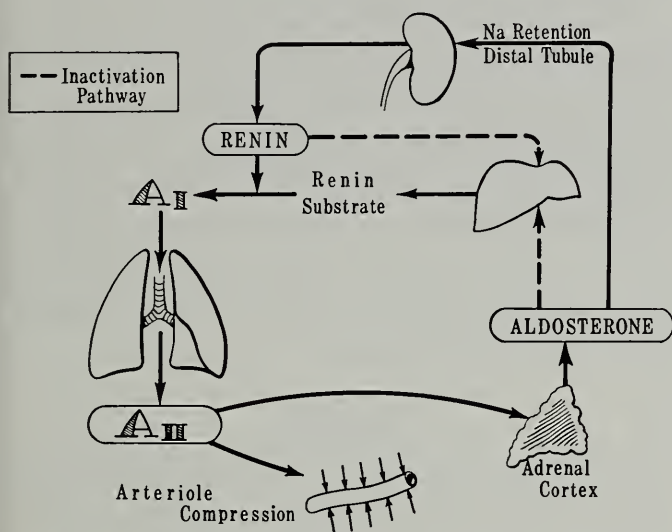


Fig. 1. Pathways of the Renin-Angiotensin System (Refer to Text for Description).

and release by the zona glomerulosa of the adrenal cortex. The effects of aldosterone on the nephron and of Angiotensin II on the arteriole complete the cycle initiated by renin release.<sup>21</sup> Both renin and aldosterone are inactivated primarily, if not entirely, by the liver.<sup>23</sup> Angiotensin II is probably inactivated at its receptor sites in vascular smooth muscle.<sup>7</sup>

The renin-angiotensin system is a dynamic, rapidly responding one. Release of renin into renal venous blood may increase dramatically within 5-10 minutes with appropriate stimulation.<sup>33</sup> Decline can be equally rapid.<sup>33</sup> The half-life of circulating renin is estimated at 15-30 minutes.<sup>17,23</sup> Increases in circulating aldosterone levels have been found 15 minutes after P.R.A. becomes elevated, for example by intravenous furosemide.<sup>4</sup> Inactivation of renin appears to require only a single pass through the normal liver.<sup>23</sup> The physiology of this system has been further enlightened by recent discoveries of (a) renin inhibitor in normal plasma,<sup>43</sup> (b) a diurnal variation of renin secretion,<sup>16</sup> and (c) urinary secretion of renin.<sup>22</sup>

By comparing renin activity in both renal veins, clinicians have circumvented some difficulties of interpreting a single peripheral

P.R.A. in the renal hypertensive suspect. We are currently following a group of patients operated at Norfolk General Hospital for suspected renal hypertension. All had peripheral and renal vein renin determinations before attempted operative cure of renal hypertension. Our initial experience supports the view that hypersecretion of renin by an affected kidney regularly foretells operative relief of hypertension. Absence of unilateral hypersecretion, however, does not always foretell operative failure. Controlled performance of the test, perhaps with stimulation of the renin-angiotensin system, is basic to proper interpretation of the results.

## Methods and Materials

An assay for plasma renin activity (P.R.A.) was brought to the Tidewater area in the spring of 1970 by Dr. A. T. Wan of the Pathology Department at Norfolk General Hospital. After several months of experimentation, the assay was perfected and offered for clinical application. The test is a specific radio-immunoassay for Angiotensin I generation rate,<sup>20</sup> which in most situations provides a direct measurement of renin activity.<sup>21</sup> Nearly 400 measurements of P.R.A. were made from August, 1970, through December, 1971. Among these were 45 patients who had bilateral renal vein renin (R.V.R.) determinations. Fifteen of the latter patients underwent operation in attempt to relieve suspected renal hypertension. These 15 patients, grouped according to their R.V.R. ratios in Table II, form the basis of this report.

Screening was by minute-sequence or routine intravenous pyelography. If the screening test was positive,<sup>31</sup> or if the patient was felt strongly to be a potential operative candidate, he was then subjected to R.V.R. measurement and renal arteriography. Usually these two procedures were done on the same morning. All studies were done with the patient hospitalized on a regular diet. Diuretics and other anti-hypertensive medications were withdrawn at least two or three days before the test. The patients were usually pre-medicated with

meperidine and atropine, then kept supine. Renal venous blood was collected into chilled vials after catheterization of the renal veins by a modified Seldinger technique.<sup>40</sup> In three patients (A.P., F.A., and P.M.) the renal vein samples were obtained at laparotomy. Samples from the lower inferior vena cava near the bifurcation were taken at the same time as renal vein samples. Lower caval samples are essentially the same as peripheral vein samples with regard to P.R.A.

In our laboratory, a peripheral (lower caval) P.R.A. of greater than 200/ng/100ml./hr. is taken to be elevated. A ratio of P.R.A. (Diseased/Normal) from the two renal veins of 1.5 or more is considered lateralization or unilateral hypersecretion of renin, regardless of absolute values. Patients with a ratio of

at the time of laparotomy. A pressure drop of 20 mm Hg or more was considered to be a significant gradient. The standard operative approach was transperitoneal via a subcostal incision.

After discharge from the hospital, patients were followed by the referring physician and by us. A patient's blood pressure is termed normal if it became 150/90 or less on no anti-hypertensive medication. A patient is termed improved if the mean arterial pressure fell by at least 20 mm Hg on no more medication than before operation. Otherwise, the blood pressure is termed high.

### Results

As shown in Table II, the two groups are similar except for the longer duration of hy-

TABLE II

AVERAGES OF BOTH GROUPS

	Age Yrs	Duration B.P. Years	Preop B.P.	Postop B.P.	Follow Up
9 Patients R.V.R. Ratio > 1.5	47	2.2	204/124	153/93	10 Mos.
6 Patients R.V.R. Ratio < 1.5	46	8.5	203/123	145/92	9 Mos.

1.5 or greater comprise Group I. Patients with a ratio less than 1.5 comprise Group II.

Among the 15 operations, two were primary nephrectomies (P.Q. and E.G.), and 13 were revascularizations. One patient underwent secondary nephrectomy because of postoperative thrombosis of a splenorenal arterial bypass. One other arterial repair (excision of a fibroplastic segment of a renal artery) was complicated by a postoperative thrombosis (E.J.). Emergency thrombectomy salvaged the kidney. The other operations (segmental excision, endarterectomies, and bypass grafts) are presumed technical successes on the basis of postoperative excretory urography and clinical course. Three bilateral revascularizations were performed (A.G., P.M., E.S.). Pressure gradients across 13 renal artery stenoses were measured with a strain gauge in nine patients

pertension in Group II. The patients tended to be in their middle to late forties and to have rather severe hypertension. All 15 patients remain available for follow-up. No operative or postoperative death was encountered.

Blood pressure results are shown along with age and diagnosis of patients with (Group I, Table III) and without (Group II, Table IV) preoperative unilateral hypersecretion of renin. Looking first at Table III, eight of nine patients with a lateralizing R.V.R. ratio were cured or improved as a result of appropriate operation. Peripheral P.R.A. levels (lower cava) were elevated in only two patients in this group, both of whom were benefited by operation. The other seven patients all had normal or low peripheral P.R.A.; 6 of these became normotensive or improved by operation.



Looking next at Table IV, five of six patients with non-lateralizing R.V.R. ratio were cured or improved by operation. Peripheral P.R.A. levels were elevated in three patients, all three of whom were benefited by operation.

Eight of these patients were nonetheless benefited by operation; two were left with their hypertension unchanged. Lateralization of renin secretion was noted in nine patients; eight of these derived blood pressure reduction

TABLE III

LATERALIZING RENAL VEIN RENINS: R.V.R. RATIO > 1.5							
		Pathologic Diagnosis	Renin Rt.	NG/100cc/Hr. Left	I.V.C.	R.V.R. Ratio	B.P. Results
P.M.	61	Bilat. ASO	713	1250	345	1.75	Normal
P.Q.	37	TB, Lt. Kidney	112	243	141	2.2	Normal
S.J.	40	ASO, Rt.	51	24	15	2.1	Improved
F.A.	43	ASO, Rt.	860	263	110	3.3	Normal
J.E.	31	Ocel. Graft, Rt.	87	51	57	1.7	High
E.S.	52	Bilat. ASO	132	256	143	1.95	Normal
D.K.	55	ASO, Rt.	117	71	79	1.65	Normal
C.S.	60	ASO, Lt.	28	102	43	3.7	Normal
E.G.	49	ASO, Rt.	322	190	277	1.7	Improved

TABLE IV

NON-LATERALIZING RENAL VEIN RENINS: R.V.R. RATIO < 1.5							
		Pathologic Diagnosis	Renin Rt.	NG/100/Hr. Left	I.V.C.	R.V.R. Ratio	B.P. Results
E.B.	53	Aneurysm, Lt.	53	74	73	1.4	High
E.J.	33	Fibropl. Lt.	104	77	77	1.4	Improved
A.P.	29	A.S. Plaque and Stenosis Br. Rt.	1353	1270	1233	1.2	Normal
A.G.	43	Bilat. Fibropl.	37	33	63	1.1	Normal
T.F.	48	Fibropl. Rt.	260	380	253	1.46	Normal
J.S.	73	ASO, Rt.	260	190	202	1.36	Improved

The other three patients had normal P.R.A. Two of these were benefited by operation. Table V summarizes the accuracy of renin measurements in predicting the blood pressure response to operation in the 15 patients. All five patients with elevated peripheral P.R.A. were benefited by operation. Ten patients had normal or low peripheral P.R.A.

from operation. Non-lateralization was present in six patients; five of these were still benefited by their operation. Pressure gradients were compared with R.V.R. ratios where both data were available. Seven patients with unilateral renal artery disease had significant gradients across their stenotic lesions. Two of these seven failed to

show R.V.R. lateralization; yet both were cured of their hypertension by the operation. Four of the other five patients were also benefited by operation. Two patients with bi-

TABLE V  
ACCURACY OF RENIN MEASUREMENTS IN PREDICTING  
B.P. RESPONSE TO OPERATION

BLOOD PRESSURE RESULT	PERIPHERAL P.R.A.	R.V.R. Ratio
	>200 Ng/100 ml/hr	$\geq 1.5$
Normal or Improved High	5	8
	0	1
	<200 Ng/100 ml/hr	<1.5
Normal or Improved High	8	5
	2	1

lateral renal artery disease had significant gradients on both sides. One had preoperative R.V.R. lateralization. Both were benefited by bilateral revascularization.

## Discussion

The data supports a hypothesis that hypersecretion of renin by an affected kidney predicts operative relief of renal hypertension. Nine patients had lateralization of renin secretion, i.e., a R.V.R. ratio greater than or equal to 1.5. Eight of these (89%) were relieved of hypertension by appropriate operation. Similar data have been recently accumulated by other investigators.<sup>8,11,15,27,32,38,51</sup> Absolute R.V.R. values appear to matter but little as compared to the ratio.<sup>8,15,27</sup> The false positive ratio (that is, lateralization of renin secretion with postoperative persistence of hypertension) comprises about 5-15% of the total positives in these reports, as it did in ours.

Elevation of peripheral P.R.A. was found in five patients. All five of these patients were benefited by appropriate operation. With regard to peripheral elevations, our data thus confirms that obtained by several other groups in recent years.<sup>2,19,28,47</sup> Elevated peripheral P.R.A. should be considered quite meaningful in the renal hypertensive suspect, provided

known stimulators of the renin-angiotensin system (Table I) are controlled. Depending on the patient's age and the severity of the hypertension, elevated peripheral P.R.A. warrants intensive search for a renal or renovascular etiology. A few false positives have been reported,<sup>5</sup> but these are easily tolerated in a screening test.

Ten patients in the present series had a peripheral P.R.A. that was normal or low. Eight of these were relieved of renal hypertension by nephrectomy or revascularization. The incidence of false negative peripheral P.R.A. was thus quite high among our patients. Bath, et al., have stated

... if peripheral venous P.R.A. is normal, the likelihood of surgically remediable renovascular hypertension appears to be remote regardless of the presence or absence of roentgenographic evidence of renal arterial occlusive disease. . . .<sup>2</sup>

Our data fail to support such a statement. Other investigators have had experience similar to ours, as regards the normal peripheral P.R.A.<sup>5,27,38</sup> Correctable renal hypertension frequently exists without elevation of peripheral P.R.A.

Kaufman, et al.,<sup>27</sup> have shown that a dog with hypertension caused by stenosis of one renal artery develops only a transient increase in peripheral P.R.A. Lateralization of renin secretion is maintained, though the absolute values of P.R.A. become depressed. The hypertension remains curable by nephrectomy many months after peripheral P.R.A. falls into the normal range.

Renin-dependent hypertension may exist with normal or low peripheral P.R.A. Brown, et al.,<sup>10</sup> suggest that increases in target organ sensitivity rather than increased P.R.A. may be the responsible factor. Bianchi, et al., present data showing that hypertension in some patients with renal artery stenosis

... could be maintained mainly by a relative expansion of body fluids which, conversely, might inhibit the plasma renin concentration increase.<sup>5</sup>



In some patients with renovascular hypertension, the P.R.A. is normal but it fails to suppress in a normal fashion with sodium loading or volume expansion.<sup>50</sup> Because of these studies and our own observations, we do not expect a normal peripheral P.R.A. to rule out correctable renal hypertension.

Six patients in our series had approximately equal P.R.A. in the two renal veins. Nevertheless, five of these were relieved of hypertension by appropriate operation. Non-lateralization was thus not a reliable predictor of operative failure in these patients. We deem the R.V.R. ratio to be falsely negative in these patients. A significant number of such false negative R.V.R. ratios has been reported by some investigators,<sup>11,14,27,32</sup> but not by others.<sup>28,51</sup>

How may we explain the false negative ratios? Bilateral or branch renal artery stenosis may not yield lateralization.<sup>32</sup> Nonsimultaneous sampling of the renal veins may also cause false negative R.V.R. ratios, because of the capability of the system for rapid change.<sup>4,33</sup> Collateral circulation, as seen on arteriography, may be responsible for some false negative ratios.<sup>14</sup> Some false negative ratios may be converted to true positives with stimulation of the renin-angiotensin system: sodium depletion,<sup>45,49</sup> erect posture,<sup>34</sup> and controlled hypotension<sup>25</sup> have all been used successfully in this way. More thorough investigation of false negative R.V.R. ratios is the subject of a forthcoming report.<sup>30</sup>

Because of the incidence of false negatives, we have revised our protocol for performance of R.V.R. determinations. The patient is now admitted to the hospital and placed on a virtually sodium free diet (10 Meq/day) for three days before the test. A thiazide diuretic is given twice daily the three days before the test. Other medications are withheld. The patient is kept strictly supine after bedtime the previous evening until his arrival in x-ray the next morning. The renal veins are catheterized (preferably with separate catheters simultaneously); then the patient is tilted into the erect position. Samples are collected after 15 minutes of postural stimulation. Hopefully,

such a regimen will increase the sensitivity of this valuable test.

Pressure gradients were helpful when present. A significant gradient was always found across a stenotic artery where the affected kidney hypersecreted renin. In two cured cases, a gradient was found where the affected kidney did not hypersecrete renin. Absence of a gradient should probably be disregarded, if that kidney was shown beforehand to hypersecrete renin. Certain stresses may cause a significant gradient to disappear during operation.<sup>29</sup>

### Conclusions

1. The renal hypertensive suspect continues to challenge the diagnostic abilities of the clinician.
2. Elevated peripheral renin levels suggest a renal etiology of hypertension. This assumes the physician managing the case knows what is normal under the specific conditions (diet, posture, medications, time of day, associated illnesses, etc.) of the test.
3. Normal peripheral renin levels are to be expected in a large number, probably a majority of patients with correctable renal hypertension.
4. Hypersecretion of renin by an affected kidney (R.V.R. ratio greater than or equal to 1.5) almost uniformly predicts operative relief of hypertension.
5. Unilateral hypersecretion of renin may be missed unless the dynamic nature of the renin-angiotensin system is taken into consideration.
6. A working knowledge of the renin-angiotensin system is basic to proper use of renin measurements in evaluation of the renal hypertensive suspect.

### Summary

Fifteen patients underwent operation for suspected renal hypertension. All patients were evaluated by excretory urography, arteriography, and determination of peripheral and renal vein plasma renin activity (P.R.A.).

Pressure gradients were measured in some of the patients. An elevated peripheral P.R.A. or lateralization of renal venous P.R.A. toward an affected kidney nearly always predicted operative relief of hypertension. The converse was not necessarily true. Physiology of the renin-angiotensin system, as it applies to the renal hypertensive suspect, is briefly re-

viewed. A protocol for performance of renal vein resin determination is presented.

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A list of references may be obtained from Dr. Poutasse.

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### Life Span Gains 22 Years

A child born today in the United States can expect to live about 22 years longer than his grandparents, a report published in the current issue of *Update*, a publication of the American Medical Association, says. That's a gain of 44.5 per cent—or nearly half a lifetime of life span added since 1900.

The figures are based on life expectancy data for 1971, recently released by the U. S. Public Health Service. These were compared to similar data for 1900. "A child born in 1971 can expect to blow out the candles on his (or her) 71st birthday cake."

"Why are people living longer today? One reason is that the average living standard has greatly improved in the past seven decades. Another reason is that more people have learned the value of taking proper care of themselves."

"Also, advances by medical research and medical practice merit a large share of the credit. Since 1900, the U. S. death rate has dropped from 1,719 to 929 per 100,000 persons."

"At the turn of the century, tuberculosis,

gastritis, chronic nephritis and diphtheria were among the top ten leading causes of death. Together, they claimed 458 lives each year for every 100,000 people. Now they are no longer listed as leading killers.

"In their stead, diabetes mellitus, cirrhosis of the liver, arteriosclerosis and bronchitis and related diseases currently appear on the list. But those four killers account for a significantly lower death rate of 63.7 per 100,000.

"Six of the top ten leading causes of death in 1900 are still on the list. Four of them—influenza-pneumonia, cerebrovascular diseases, accident and certain diseases of early infancy—now show a 54.7 per cent lower death rate of 200.8 compared to 443.7 in 1900.

"Only the two remaining killers—heart disease and cancer—account for higher death rates now than at the turn of the century. Heart disease, currently the number one killer, now claims 358.4 lives each year for every 100,000 Americans while the death rate for second-ranking cancer is 160.9 per 100,000. The comparable figures for 1900 were 137.4 and 64 respectively."



# The Subclavian Steal Syndrome

## A Clinical Approach

J. A. VAN HEERDEN, M.B.Ch.B.  
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**Among the candidates for vascular surgery is the patient with symptoms due to the subclavian steal syndrome. As physicians become more interested in this situation, more cases are found. The indications for operation are clear, the surgical risk is not excessive, and the chances of success are good.**

**D**URING THE PAST DECADE, greater emphasis has been placed on the recognition of extra-cranial causes of cerebral ischemia in those patients with transitory "small strokes", syncopal episodes, transient visual disturbances, weakness and claudication of the upper extremities. Of these causes, the "Subclavian Steal Syndrome" has aroused great clinical and surgical interest.

This syndrome, which implies retrograde vertebral artery flow, occurs due to obstruction proximal to the origin of the vertebral arteries, i.e. in the subclavian artery on the left and subclavian and/or innominate arteries on the right. The most common cause of this obstruction is atherosclerosis, but the etiology may be varied, i.e.:

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From the departments of Surgery and Neurology, Winchester Memorial Hospital.

### *Congenital:*<sup>12</sup>

- a. Subclavian artery atresia
- b. Coarctation of the aorta

### *Acquired:*

- a. Atherosclerosis
- b. Iatrogenic
  - 1. Following a Blalock-Taussig anastomosis
  - 2. Ligation of the subclavian artery during resection of a thoracic aortic aneurysm.

### *Traumatic:*

Subluxation of the clavicle leading to compression and thrombosis of the subclavian artery.

Retrograde vertebral artery flow was first demonstrated angiographically by Cantorini<sup>3</sup> in 1960. Although many names such as "brain drain", "grand larceny of the vertebral", "subclavian snitch" and "brachial-basilar insufficiency" have been applied to this syndrome,<sup>18</sup> only "Subclavian Steal" has endured the test of time. This term was first introduced into the English literature in an editorial in the *New England Journal of Medicine* by Fisher<sup>7</sup> in 1961.

The normal anatomical arrangement of the subclavian-vertebral-basilar system is shown in

Fig. 1 and the reversed vertebral flow depicted in Fig 2.

The sources of collateral supply to the distal subclavian artery are:

- a. Vertebral artery
- b. Thyro-cervical trunk (inferior thyroid artery)
- c. Internal mammary artery
- d. External carotid artery

Although all of these collaterals can be sacrificed with impunity, reversed flow, in the vertebral artery, with its "siphoning" effect on the blood supply to the cerebral hemispheres,

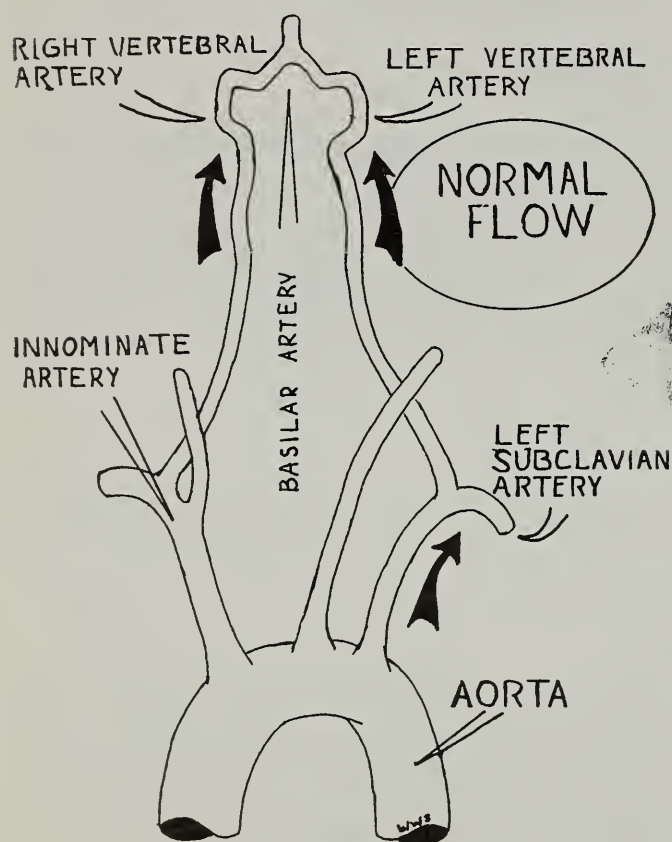


Fig. 1. Normal anatomy.

leads to the most disastrous results. We have recently had the opportunity to manage two patients who depicted many of the interesting facets of this syndrome and would like to present them in some detail.

*Case #1.* Mrs. T. C., a 61 year old white female, was initially seen in August 1971. At

this time, she complained of persistent dizziness for approximately one month and of recurrent episodes of numbness and clumsiness of her left hand lasting 10-15 minutes for the past three weeks. Her past history was significant in that she had been hypertensive for the last ten years.

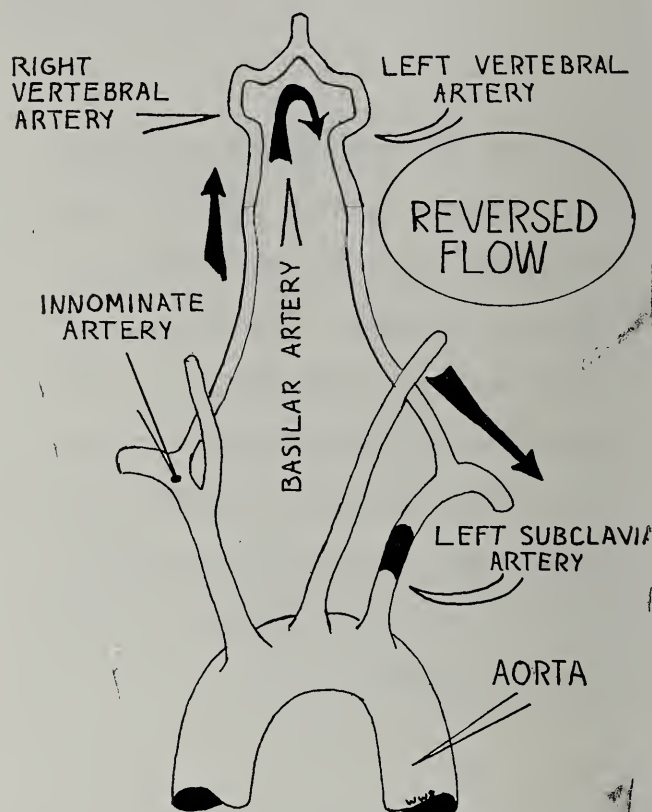


Fig. 2. Reversed vertebral flow with subclavian occlusion.

Significant findings on physical examination revealed a blood pressure of 130/100 mm Hg in the right arm and a pressure of 200/100 mm Hg in the left arm. The right brachial pulse was markedly reduced in comparison to the left. A systolic bruit was present over the proximal right subclavian artery as well as less pronounced bilateral carotid bruits. Except for mild hypercholesterolemia, her routine laboratory evaluation was unremarkable.

A right retrograde brachial and an aortic-arch arteriogram were done (Fig. 3-5).

On August 23rd, a right subclavian endarterectomy, without a patch angioplasty, was done through a supraclavicular incision with excision of the medial half of the clavicle. At the end of the procedure, pressures were equal in both arms and brachial pulses were equal.



On the fourth postoperative day, the patient developed transient loss of coordination of her hand which was attributed to a branch occlusion of the right middle cerebral artery. At

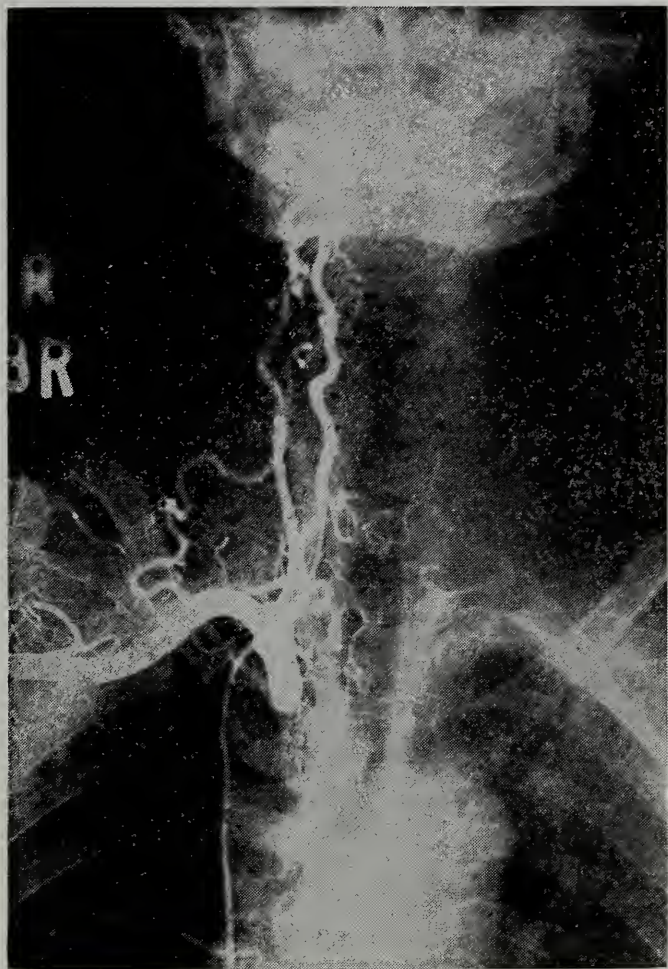


Fig. 3. Right retrograde brachial angiogram showing occlusion of proximal subclavian artery and extensive collateral supply to the distal subclavian.

the time of her dismissal on the tenth postoperative day, she had gained full control and was asymptomatic.

Five months later, pressures were still equal in both arms and except for persistent hypertension, physical examination was negative. She had not experienced dizziness or clumsiness of her left hand since hospital dismissal.

*Case #2.* Mr. W. M., a 59 year old white male, was initially seen in June of 1969. At this time, his main complaint was of vertigo, occasional nausea and transient attacks of dim-

ness of vision. His past history was significant in that he reportedly had a "stroke" approximately three years prior to being seen in Winchester. Significant findings on physical ex-

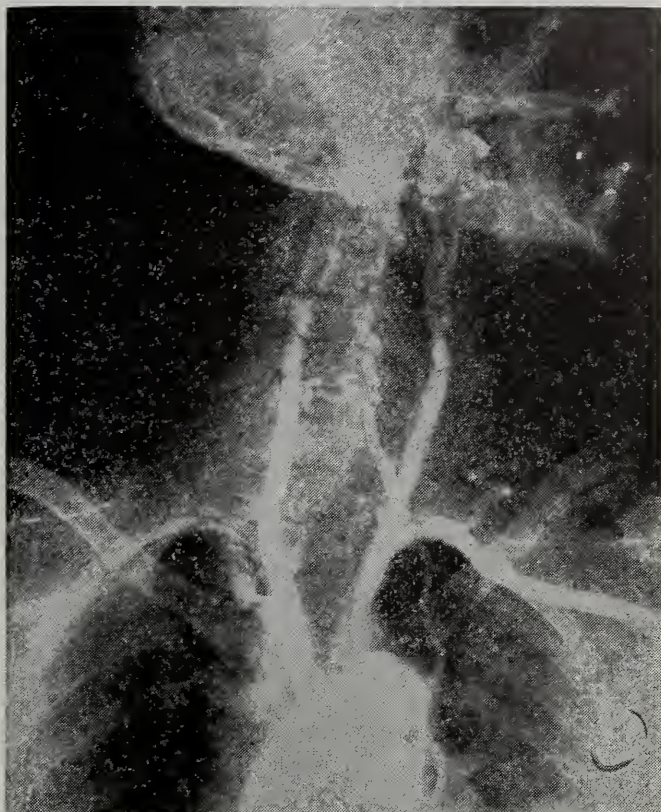


Fig 4. Aortic arch study revealing almost total occlusion of proximal portion of right subclavian artery. Note plaques at both common carotid bifurcation and collateral arising from left thyro-cervical trunk and traversing the neck from left to right.

amination revealed a blood pressure of 180/100 mm Hg in the right arm and 120/100 mm Hg in the left arm. His pulses in the left upper extremity were markedly reduced in comparison to the right and, in addition, a loud systolic bruit was heard over the left subclavian artery. Again, soft systolic bruits were heard over both carotid arteries. Basic laboratory investigation was essentially negative. Angiographic demonstration of subclavian stenosis with a left subclavian steal syndrome was obtained (Figs. 6, 7).

On July 11, 1969, the patient was explored through a left posterolateral thoracotomy and endarterectomy of the left proximal subclavian



artery was performed. At the completion of the procedure, the blood pressure in the left arm remained 20 mm lower than in his right arm. His postoperative course was essentially

and ataxia), one must also recall that the vertebro-basilar system supplies the posterior thalamus, occipital lobes and the inferior temporal lobes, and ischemia of these areas may account

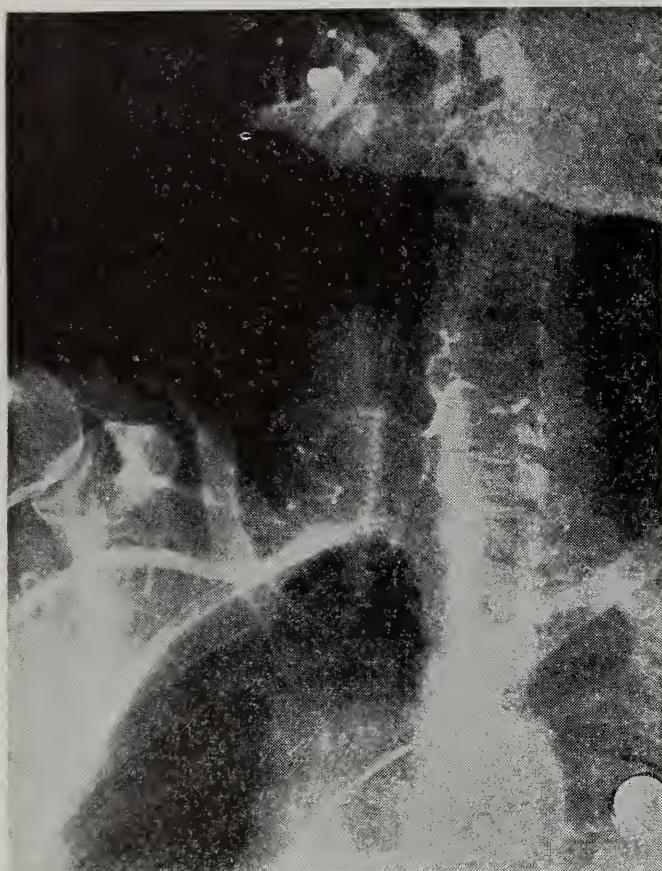


Fig. 5. Aortic arch study showing retrograde flow in right vertebral artery.

uneventful. In the ensuing 2½ years, the patient has been entirely asymptomatic.

### Clinical Aspects of Subclavian Steal Syndrome

The tetrad consisting of brainstem ischemic episodes, difference in radial pulses, supraclavicular bruit and difference in blood pressure in the arms of at least 20 mm Hg systolic should immediately make the clinician think of the subclavian steal syndrome. Of these findings, the difference in blood pressure is perhaps the most consistent and important.

When one recalls the vascular anatomy of this condition, it is realized that any portion of the territory supplied by the vertebro-basilar system could become ischemic and while the usual complaints are those of brainstem and cerebellar ischemia (dizziness, vertigo, tinnitus,

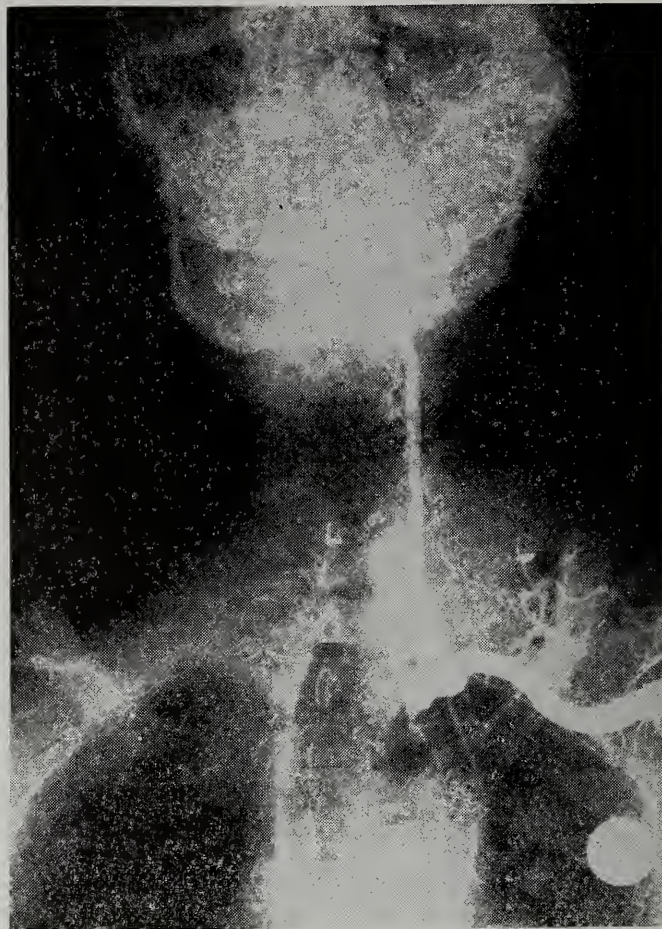


Fig. 6. Left retrograde brachial angiogram showing severe stenosis of proximal left subclavian artery with extensive distal collateral supply.

for visual disturbances or "dreamy states" associated with psychomotor seizures.<sup>2</sup> "Drop attacks" which probably are caused by ischemia in the region of the medullary corticospinal tract decussation have also been reported to occur in this syndrome.

The radial pulse on the side of the subclavian steal may be either diminished or delayed. When one palpates both radial arteries simultaneously, generally there will be an asymmetry of pulses with the diminished one on the ipsilateral side of the lesion. Occasionally, however, the radial pulses may be equal in amplitude but there is a delay on the ipsilateral side, probably because of the greater distance the pulse wave must travel (i.e., up one vertebral artery and down the other vertebral ar-



tery before traveling to the wrist). Gonsette states that hyperextension of the neck may lead to disappearance of the radial pulse on the side of the lesion.<sup>8</sup> When there is obstruction

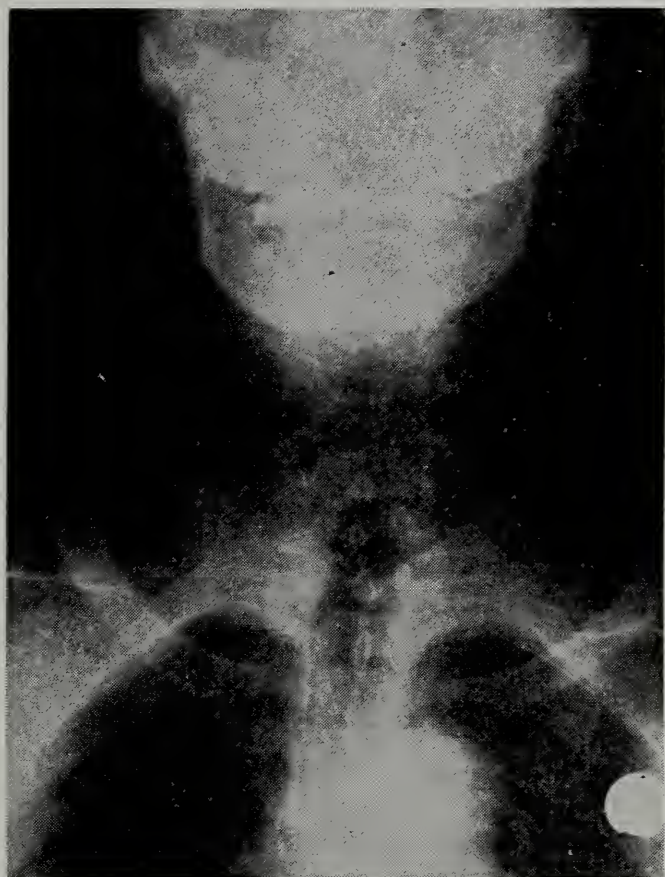


Fig. 7. Late phase of aortic arch study showing retrograde flow down left vertebral artery.

of the vertebral artery with this maneuver, one can easily see how the radial pulse may "disappear."

Almost 80% of Patel's and Toole's patients had supraclavicular bruits on one or both sides.<sup>15</sup> Neck rotation, position, and deep inspiration may change the characteristics of the bruit due to subclavian artery compression and altered hemodynamics.

The difference in blood pressure in the arms is perhaps the most consistent finding. However, Kesteloot<sup>11</sup> has found blood pressure to fluctuate as much as 20-50 mm Hg in twenty-four hours in the arms and, thus, serial determination should be taken to establish that there is a persistent difference in the two sides.

A few patients will complain of the onset of symptoms with exercise. These symptoms may be either of CNS origin or related to peripheral ischemic pain in the affected arm.

Patel and Toole have suggested an exercise test of lifting a five-pound weight from the waist to over the head with each hand simultaneously at a rate of 30/minute for three minutes and observe the patient for CNS symptoms, pulse, blood pressure, or bruit changes.

According to one survey,<sup>9</sup> men are affected two to three times more often than women. The left subclavian artery is affected two to two and one-half times more often than the right. The duration of symptoms may vary as long as twenty years. On the average, the time between onset of symptoms and diagnosis is two years.

### Management of the Subclavian Steal Syndrome

Patients with this syndrome can conveniently be divided into three clinical categories:

1. Those who are asymptomatic
2. Those who are asymptomatic from a "steal" standpoint, but have symptoms of atherosclerosis such as angina or peripheral vascular disease.
3. Those who have symptoms of cerebral ischemia.

In those patients who are asymptomatic, no therapy is advised<sup>5,10,13</sup> at this time, although the passage of time and the accumulation of more data may change this current philosophy. As Piccone<sup>16</sup> et al. have emphasized, the main indications for operative repair are to prevent incipient strokes, to relieve recurrent cerebral ischemic attacks and only rarely to relieve upper limb ischemic complaints.

Once the decision has been made to proceed with operative restoration of distal flow, a wide variety of procedures are available to the surgeon. The technique of flow restoration varies with the underlying etiology and with the individual surgeon's preference. A technical point worth re-emphasizing is the difference in "texture" between the subclavian artery and the arteries of the lower limbs. In our experience, it is much more "cheesy" and delicate—more analogous to the pulmonary artery.

## Surgical Approach

*Left-sided lesions:* The best approach for these lesions is a posterolateral thoracotomy through the fourth intercostal space with adequate exposure of the aortic arch and left subclavian artery.

*Right-sided lesions:* Good exposure of the obstructive site can be obtained by:

- a. Supraclavicular "collar" incision with or without resection of the medial half of the clavicle.
- b. Supraclavicular incision with a limited midsternotomy with or without the development of a chest wall flap.

Occasionally, reconstruction of the innominate artery requires some type of temporary by-pass such as the heparin-coated shunt popularized by Gott et al.<sup>14</sup>

*Bilateral lesions:* A collar incision with a medium sternal splint has been used by Bernatz et al.<sup>4</sup>

## Surgical Technique

1. Thrombo-endarterectomy with or without a patch arterioplasty. This has been the most commonly used mode of repair and has gained wide acceptance.
2. By-pass procedures:
  - a. Aorto-subclavian by-pass<sup>6</sup>
  - b. Carotid-subclavian by-pass—this technique has recently been advocated<sup>1</sup> and appears to be gaining in popularity. The disadvantages of a thoracotomy are obviated, theoretically decreased carotid artery flow has not been demonstrated and simultaneous carotid endarterectomy is possible.
  - c. Subclavian—subclavian by-pass<sup>18</sup> as recently advocated by Rush et al.
3. Vertebral artery ligation—this procedure has been advocated by Rob<sup>17</sup> as our alternative in poor-risk patients. It appears unphysiological although the results have been quite favorable.<sup>19</sup>
4. Subclavian transposition
5. Vertebral transposition
6. Vessel replacement.

Procedures 4-6 are seldom employed and are listed for completeness only.

Although endarterectomy has been well established and the results have been good, emphasis must be placed on the similarly good results with carotid-subclavian by-pass with its already mentioned advantages.

## Summary

The clinical features and management of two patients with the Subclavian Steal Syndrome are presented briefly. In addition, a brief review is given of the etiology, symptomatology and management of this interesting syndrome.

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## BOOK ANNOUNCEMENT

CURRENT PEDIATRIC DIAGNOSIS AND TREATMENT. Second Edition by C. Henry Kempe, Henry K. Silver, Donough O'Brien. Lange Medical Publications, Los Altos, California 94022

The purpose of this book is twofold: (1) to present to the student of Pediatrics in a concise and yet comprehensive form, the necessary information to make a proper diagnosis and (2) to supply the physician with information which he can utilize in the management of the "whole patient." It appears that the editors and authors have achieved this purpose, bringing together in 40 chapters a complete summary of the vast Pediatric literature in the diagnosis and treatment of children.

The text is completely clinical in its orientation and each article is brief and to the point;

however, after each article is a review of references for a more complete analysis of the subject if needed or desired by the reader. In 1,008 pages, the physician or nurse can find virtually everything he wants to know about general Pediatrics, and there is a selective list of references grouped into topical categories.

The majority of contributors and all editors are from the University of Colorado. The close geographic association of the editors and contributors offers one of the book's strengths in almost no needless repetition.

The addition of the chapters on Ambulatory Pediatrics and on Teeth add to the general value of the book.

This book is recommended to students of Pediatrics.

MICKAEL M. KANNAN, M.D.

# Clinicopathological Conference . . . .

## Chronic Renal Disease Following Pregnancy and Terminating with Severe Frontal Headaches, Blurred Vision, Confusion and Stiff Neck

Edited by—

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Protocol Prepared by—

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### DISCUSSANTS:

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### Clinical History

A 26-year-old Negro female was transferred to the Medical College of Virginia on 11/14/69 because of headache, confusion and stiff neck.

The patient was found to be 10 weeks pregnant in November, 1968. Her prenatal care period was essentially uneventful until March, 1969, when her blood pressure was found to be 170/100 and she was felt to have mild pre-eclampsia. She was treated with a preparation containing chlorthalidone and reserpine and on subsequent determinations her blood pressure was found to be 140/90; however, in May she developed 2+ albuminuria. Later that month she was admitted in labor to a local hospital where she was delivered of a stillborn male child. She was reported to have 3+ albuminuria on admission. Following delivery of the child, the patient ran a febrile course with temperature spikes as high as 102° in the evening and the early morning hours, which gradually subsided over a period of a week. She was discharged but had recurrence of her fever at her first post-partum office visit in

June, and was treated empirically with parenteral and oral penicillin. In July, she began to complain of weakness and dyspnea on exertion and was found to be anemic, with a hematocrit of 21. She was admitted to another local hospital, where she became progressively more lethargic and was noted to be oliguric. Because of the oliguria, she was transferred to an Intensive Care Unit.

Physical examination revealed a small, well-developed, well-nourished woman appearing chronically ill. She was awake, but nonresponsive. Blood pressure was 170/100. There were darkly pigmented areas over the upper lip and cheeks bilaterally. The neck resisted flexion but there was no spasm of the neck musculature. Eye grounds showed no definite exudates or hemorrhages, and the discs were flat. The neck veins were flat. Chest was clear to percussion and auscultation. Heart was enlarged with the PMI 1 cm lateral to the mid-clavicular line in the fifth intercostal space. The sounds were of good quality, without murmurs or thrills. The abdomen was protuberant, soft and diffusely tender without spasm, guarding or rebound. Extremities showed 1+ edema of the legs. Pelvic examination was normal. There was black tarry stool in the rectum.

*Laboratory Data:* Hemoglobin 7.2 gm%, white count 6,400/mm<sup>3</sup> with 80% neutrophilia. Urinalysis showed 4+ albuminuria but was negative for sugar and acetone. The urine was loaded with red blood cells and showed 25-30 white cells/hpf. BUN 150 mg%. Her stools were positive for occult blood.

The patient was placed on hemodialysis with improvement in her clinical status. A percutaneous biopsy of the left kidney was per-



formed on 8/4/69, and showed changes of membranous glomerulonephritis. L.E. preparations, which had been negative prior to the biopsy, were reported as positive that same day. She was begun on prednisone, 100 mg daily, with improvement in her urine output and stabilization of her electrolyte abnormalities. However, her blood pressure remained elevated and she required hydrochlorothiazide and a low sodium diet. On 9/22/69 she was thought to be in acute congestive failure, which responded to administration of digitalis. She was discharged on 9/27/69, at which time her hematocrit was 30%, and white count 10,600/mm<sup>3</sup> with an essentially normal differential. Total protein was 6.5 gm%, albumin 3 gm%, serum cholesterol 240, calcium 10.8 mg%, phosphorous 5.6 mg%, total bilirubin 0.8 mg%, uric acid 7.1 mg%, glucose 106 mg%, LDH 125, alkaline phosphatase 12, SGOT 15, creatinine 2.3. Serum sodium was 136 mEq/l, potassium 5.2 mEq/l, CO<sub>2</sub> 26 and chlorides 102 mEq/l.

She was followed in her physician's office. She gradually gained strength, but her blood pressure remained slightly elevated. Her BUN appeared to be stable in the low 30 mg% range. She was noted to have ascites on 11/7/69 and was begun on furosemide, 40 mg b.i.d. About that time, she developed frontal headache of progressively increasing severity. She was seen by her ophthalmologist and her glasses were changed, but her headache persisted. Twenty-four hours prior to admission, she was noted to be confused and to have developed a stiff neck. She was seen in the Emergency Room of the local hospital where physical examination revealed: BP 180/120, P 100, R 18, T 98.6°. She was a well-developed Negro woman who was Cushingoid in appearance, but apparently in no acute distress. There was hirsutism and a cigarette-paper texture to the skin. The ears, eyes, nose and throat were normal except for injection and hyperemia of the left sclera and conjunctiva. Extraocular movements were normal and her pupils reacted regularly. The fundi were unremarkable. The neck was rigid and painful to move-

ment. Breasts were normal. The chest was clear to auscultation and percussion except for a few rales in the bases. There was normal sinus rhythm without rubs, and a grade II/VI systolic murmur was heard over the pulmonic area. There were no diastolic murmurs and no gallop. The abdomen was slightly obese. The liver was palpable 2 fingerbreadths below the right costal margin and slightly tender. A fluid wave was present. Bowel sounds were active. There was no CVA tenderness. Neurological examination was unremarkable.

*Laboratory Data:* Hemoglobin 12.9 gm%, white count 7,900/mm<sup>3</sup> with 78% neutrophils, 19% lymphocytes, and 3% monocytes. Platelet count 121,000/mm<sup>3</sup> and reticulocyte count 0.8%. Sedimentation rate 51. Three L.E. preparations were negative. Urine showed a specific gravity of 1.015 with 2+ proteinuria. There were many red cells and white cells/hpf. A lumbar puncture was performed and showed an opening pressure of 585 and a closing pressure of 475 mm of water. The spinal fluid showed 10 red cells and 16 white cells (11 neutrophils and 5 lymphs). Spinal fluid protein 113 mg% and spinal fluid sugar 0. Her blood sugar was 113 mg%. BUN 20 mg%, serum sodium 150 mEq/l, potassium 4.7 mEq/l, CO<sub>2</sub> 22mEq/l, and chlorides 103 mEq/l.

Subsequent to the lumbar puncture, she was transferred to the Medical College of Virginia.

### Clinical Discussion

*Dr. Charles Cooke:* The case under consideration today is that of a 26-year-old Negro woman who was pregnant, developed toxemia, and had a stillborn child. This, unfortunately, is not too unusual. What follows is unusual, however. A month later, she was febrile, and then became dyspneic, anemic, and oliguric—an interesting sequence of events. We are led on by something else in the protocol; i.e., that she had some skin lesions on her face. He did not say they were in the shape of a butterfly rash, but I get the notion that this is what he is trying to describe. We are then immediately

faced with the prospect that this woman is pregnant and has lupus. It would be well to review a few of the facts concerning lupus and pregnancy.<sup>1,2</sup>

First of all, patients with lupus have a much higher incidence of sterility than those individuals who do not have lupus. In one series of 188 cases, some 21% of these women were unable to become pregnant. Of those who do become pregnant, the fetal wastage in terms of stillbirths, spontaneous abortions or premature babies is much higher, varying from 17-24% as opposed to 8-10% in normals.

What happens to the infants who do survive? They usually will have the L.E. factor for a matter of months, after which this disappears and they are normal.

What about the influence of pregnancy on the course of lupus? This is quite variable during pregnancy, with probably as many remissions as exacerbations. However, the incidence of exacerbations of lupus in the postpartum period is approximately 7 or 8 times greater than the incidence of exacerbation in a similar number of non-pregnant women with lupus, and these exacerbations may be quite severe.

The patient under consideration here had tarry stools, and obviously GI bleedings. We find also that she is anemic, has 4+ proteinuria with red cells and white cells in the urine, and a BUN of 150 mg%. We read on and learn that she was placed on dialysis because of this, and when the BUN was lowered a kidney biopsy was obtained. This revealed changes of membranous glomerulonephritis. L.E. preparations which had been negative in the past were then positive. This does not surprise me. In this institution, work by Drs. Mullinax, Rekate, and Brackett has indicated that there is a dialyzable factor in the serum of uremic patients which will prevent the L.E. cell reaction from being positive.<sup>3</sup>

The patient was treated with high doses of prednisone and was followed in her physician's office. She gained strength, but her blood pressure remained slightly elevated. The BUN

was stable, so we have hopefully arrested whatever was going on in her kidneys. But she began to develop headache, blurred vision, confusion, and stiff neck. We are told that her extraocular movements were intact, that she had a murmur and a red eye, that there was nothing localizing on neurologic examination, and that she had developed ascites. Her symptoms of headache and blurred vision are not unusual in lupus, but I am surprised to learn that she had ascites, which is not usually a part of the picture of lupus. It is sometimes seen in individuals with very severe nephrosis or peritonitis. The incidence of anorexia, nausea, vomiting, weight loss, and other non-life-threatening GI manifestations is fairly high in lupus, but serious bleeding, perforation, or ascites are relatively unusual and are often related more to the treatment than to the disease.

In the laboratory data, we find that she still has 2+ proteinuria, with red cells and white cells, but the most interesting thing of all is that she now has at lumbar puncture an opening pressure of 585 mm of water and a closing pressure of 475. She has 10 red cells and 16 white cells in her CSF, with 11 polys and 5 lymphs. The protein is clearly elevated to 113 mg% and the sugar was reported as zero.

We are then faced with a real problem at this point. Here is a woman with lupus who has had renal disease, who has been on steroids, and who comes in with something going on in her abdomen and something going on in her head. We need to decide what is going on here because treatment would be radically different, depending on the disease process present. For example, if this were central nervous system lupus, she would probably need a great deal more prednisone. If this were tuberculosis, she would need one form of therapy; if it were fungal, she would obviously need something else.

Dr. Glenn, may we see the x-rays at this point?

*Dr. James Glenn:* This patient had enlargement of the heart, primarily left ventricular



enlargement, on multiple chest x-rays. She had one episode of congestive heart failure with pulmonary edema in September, 1969. There was never any evidence of pulmonary infection.

The kidneys (on intravenous pyelogram in December 1968, retrograde pyelogram in July 1969, and intravenous pyelogram in September 1969) are always normal in size. There is no evidence of obstruction. There is a double collecting system on the left. The upper pole calyx of the left kidney is small and irregular, indicating either congenital hypoplasia or scarring associated with focal pyelonephritis.

*Dr. Cooke:* Thank you, Dr. Glenn.

What explanations should we consider in this situation? First of all, I think we should consider systemic lupus as the sole problem, but I think the sugar in the spinal fluid is too low for lupus. Furthermore, the spinal fluid protein in central nervous system lupus is usually not greater than 100 mg% unless the individual has infection or something else going on.<sup>4</sup> Secondly, I am not happy with the explanation of the ascites by lupus.

The next thing we should consider would be a meningeal neoplasm, but I am going to dismiss this because of the low sugar. I would expect that if we had enough neoplastic involvement to cause this, we would have a higher cell count than we have.

The next thing to consider would be bacterial meningitis. I would be particularly concerned about pneumococcal meningitis since we know that in the past individuals with nephrotic syndrome (particularly idiopathic nephrotic syndrome) often developed pneumococcal peritonitis and septicemia. This, as we know, can cause meningitis and lower the spinal fluid sugar—not just because of the white cells and not just because of the bacteria, but because the white cells have been stimulated by bacteria to phagocytose them, and in this process to metabolize the glucose. One without the other will not usually lower spinal fluid sugar. Thus, if the spinal fluid sugar of zero was due to pneumococcal meningitis, we certainly ought to have a much higher cell

count than we have, so I will dismiss that diagnosis.

The next thing we would consider would be endocarditis, either infectious or Libman-Sacks. Libman-Sacks endocarditis is a lesion peculiar to lupus and I am going to dismiss that. To my knowledge, this lesion does not break off and embolize.<sup>5</sup> I specifically looked for information regarding this in the literature and cannot find that it occurs. Secondly, Libman-Sacks endocarditis is an autopsy diagnosis rather than a clinical diagnosis. You will find that murmurs in people with lupus are more frequently due to fever, anemia, tachycardia, and a variety of other reasons than to Libman-Sacks endocarditis. However, some other form of endocarditis is an attractive possibility. She has a murmur, she has a red eye, she has something going on in her head, she has something going on in her abdominal cavity and she has something going on in her kidneys. Central nervous system manifestations of endocarditis have been summarized excellently in the pre-antibiotic era by Dr. Toone<sup>6</sup> and in recent times by Ziment.<sup>7</sup> Many patients get neuropsychiatric problems, perhaps due to cerebral emboli, to toxins, or to depression from being locked up in the hospital and given IV penicillin for six weeks. Mycotic aneurysms can rupture with the picture of a subarachnoid hemorrhage. Arteritis and abscesses are also seen. Certainly, we could explain the renal disease with endocarditis. However, I am going to reject that diagnosis in view of the low sugar. It is, so far as I can tell, unheard of for endocarditis to cause a spinal fluid sugar this low. I reject this diagnosis with some trepidation, but nonetheless will do it.

What about infections? Dr. John Decker and his colleagues<sup>8</sup> studied hospitalized patients with a variety of diseases and reported the number of major infections per 100 days of observation, which they termed the infection rate. The infection rate in lupus was 1.64; in idiopathic nephrosis it was 0.23; it was 0.00 in rheumatoid disease and was also low in other conditions. They then correlated this infec-

tion rate with the dosage of prednisone. In those individuals with lupus who are on no prednisone, the infection rate is 0.43. If they are taking a dose of 1-20 mg of prednisone daily, it goes up to 0.92. At a dose of 21-50 mg of prednisone daily, the infection rate goes up to 2.17. Between 51 mg and 80 mg it is 2.12. In those individuals who are receiving 80 or more mg per day of prednisone, the infection rate is 4. This may be solely due to prednisone or it may be that the sicker patients were getting more prednisone. Another very interesting factor is that the infection rate is equal to 3.2 if the BUN is 60 mg% or greater. Thus, we know that individuals with lupus, particularly those who have been on prednisone and/or are uremic, are far more susceptible to infection than other patients.

Let's examine some of the non-bacterial infections seen in lupus. A helpful study by Pillay et al. appeared about four years ago in the JAMA from the University of Illinois.<sup>9</sup> They had 186 patients with lupus on prednisone, and over a 12 year period they saw 12 fungal infections in these lupus patients. Nine of these 12 had azotemia, again confirming what we have shown earlier. Eight out of these 12 had been on steroids for less than four months, so this is not always something you see in individuals who have been on steroids for years and years. Many of these, in fact, had been on steroids only about a month when they were found to have fungal infections. Three of them had been treated with immunosuppressive agents and three with dialysis. Of these infections, eight of the 12 were due to *Candida albicans*, and three of the eight had peritonitis. So, this is a real possibility in this patient.

What about the possibility of tuberculous meningitis and peritonitis. This is an attractive diagnosis because the patient is Negro, comes from Richmond which has a high rate of tuberculosis, has lupus, has been on steroids and has ascites. However, I am going to reject that diagnosis. I don't think that is what she has because there is no evidence of tuberculosis on chest film, and most people with tuberculous meningitis have such. In fact, according

to one series, 80% of them will have evidence of tuberculosis in other places.<sup>10</sup> Secondly, in 83% of the cases of tuberculous meningitis, there are more than 100 white cells/mm<sup>3</sup> in the spinal fluid. Furthermore, she has more than 50% polys in the spinal fluid, which is said to effectively rule out tuberculosis, although I have never found proof for that statement. Ocular palsy is seen in 90% of patients with tuberculous meningitis, but our patient did not have this sign. Also, 80% of patients with this disease have spinal fluid proteins far greater than 100 mg%. Our patient lacks these findings, so I will reject that diagnosis.

Histoplasmosis involving the central nervous system is pretty unusual. I was able to find less than 100 cases reported in any review in the entire literature.<sup>11</sup> I could not find any distinctive features other than a positive culture. Finding this organism in the spinal fluid is quite difficult. There are other things that are more attractive, so I will reject that diagnosis.

Another possible opportunistic fungus is *Nocardia*. Approximately half of these individuals at the time of diagnosis will have a central nervous system abscess with localizing features on neurologic exam.<sup>12</sup> This is primarily a pulmonary infection, and pleuritic pain is an extremely prominent manifestation. In fact, these individuals often will develop draining sinuses that go straight through the chest wall. The patient lacks pleuritic pain, localizing features on neurologic exam, or a hole in the chest wall. Therefore, I will reject that diagnosis.

The next fungus to consider is *Candida albicans*. *Candida* is seen in debilitated patients and is seen especially in those individuals who have been on high doses of antibiotics, particularly broad-spectrum antibiotics.<sup>13</sup> They usually have several other features. It is more common in diabetics and in patients who have been on steroids (including those with lupus). They usually will have *Candida* at some other place in the body if they have it in the central nervous system—i.e., oral thrush, skin lesions, etc. This is a tempting diagnosis but I am going to reject it. The cerebrospinal fluid



white count is usually higher than this and the glucose is not this low. In addition, there is another diagnosis which is more attractive.

And we come to the last one—Cryptococcosis. I want to settle on that as my final explanation of this woman's difficulty for these reasons. Cryptococcosis is known to occur in patients with impaired immunity. This woman had lupus, had been on steroids and was uremic—three well-known reasons for having something going wrong with your defense mechanisms. Secondly, in reviewing Cryptococcal meningitis (and the best word you can get on this is from several articles by Dr. Utz),<sup>14,15</sup> 70% of these individuals had had their symptoms for more than one month and sometimes could go on for years prior to the diagnosis. We certainly get the idea that her symptoms had

cosis of the central nervous system will have visual complaints and blurred vision—which our patient had. Obviously, increased intracranial pressure can be seen, which she certainly had. In the lesions of Cryptococcosis in the central nervous system, there is usually a paucity of cellular reaction. This can produce quite low sugar even with just a few cells in the spinal fluid. Central nervous system Cryptococcosis is usually seen with disease elsewhere. In other words, the Cryptococcosis is not usually localized simply to the central nervous system, but a good proportion of patients (30-40%) will have renal disease. Ascites and peritonitis have been reported with this also. It makes me wonder if some of the lymphocytes noted in the spinal fluid could possibly have been Cryptococcal organisms. Organisms

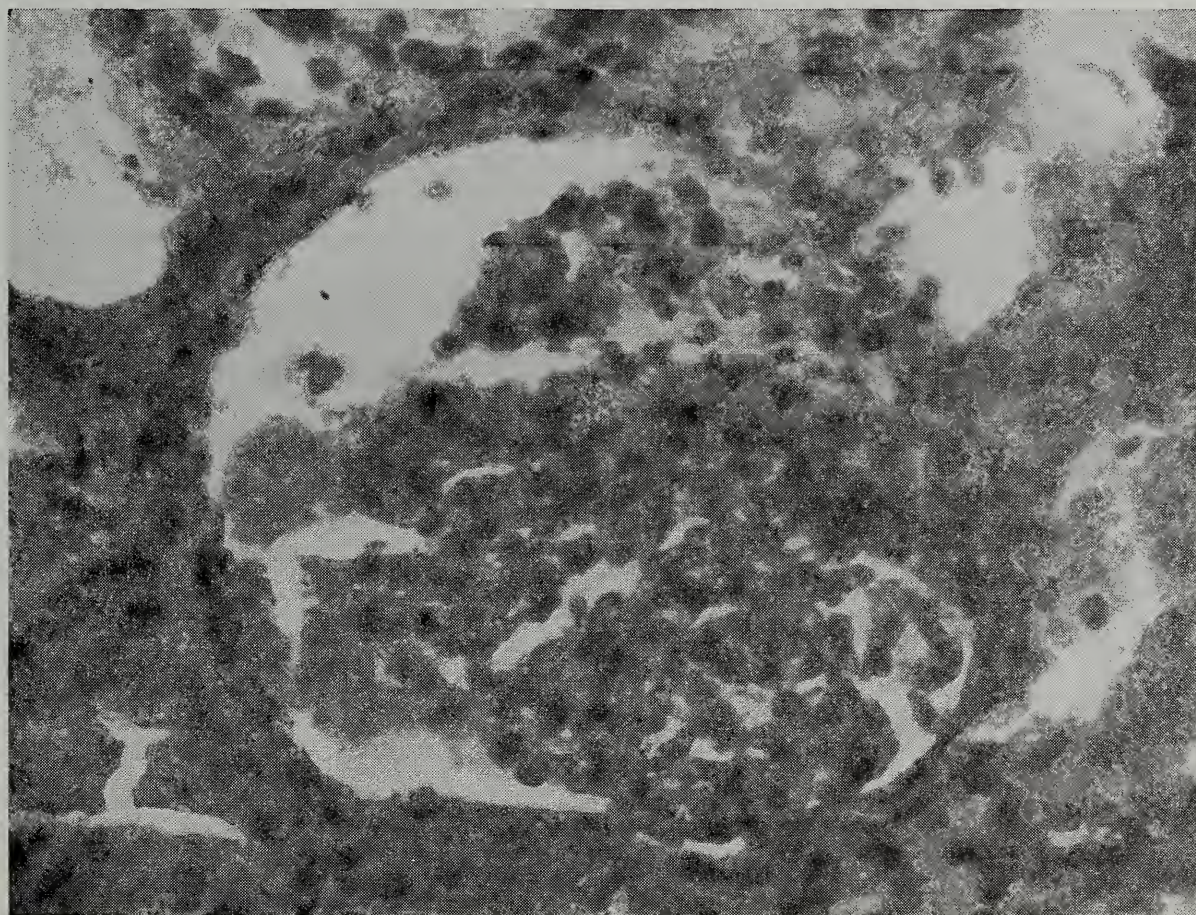


Fig. 1. Renal biopsy showing the presence of a glomerulitis. Note the increased cellularity of the glomerulus and the proteinaceous exudate in Bowman's space. H & E. x 600

gone on for quite some time. Mental changes are quite a prominent part of the picture in Cryptococcal meningitis—approximately half of the patients have confusion, disorientation, etc. About 40% of people with Cryptococ-

are at times reported by some observers as looking like lymphocytes. My final diagnosis, therefore, will be systemic lupus erythematosus with Cryptococcal meningitis and other visceral involvement.



## Pathological Discussion

*Dr. Harry I. Lurie:* At autopsy, the Cushingoid appearance was confirmed and was thought to be due to the prednisone.

There were two main problems in this case: (1) the nature and severity of the renal lesion and (2) the nature of the cerebral lesion and its relationship, if any, to the renal lesion.

she developed lupus erythematosus during pregnancy. You heard Dr. Cooke refer to the high incidence of stillbirth associated with lupus during pregnancy, and this patient's child was born dead.

A review of the needle biopsy done at the outside hospital confirmed the presence of a glomerulitis (Fig. 1). The glomerular tufts

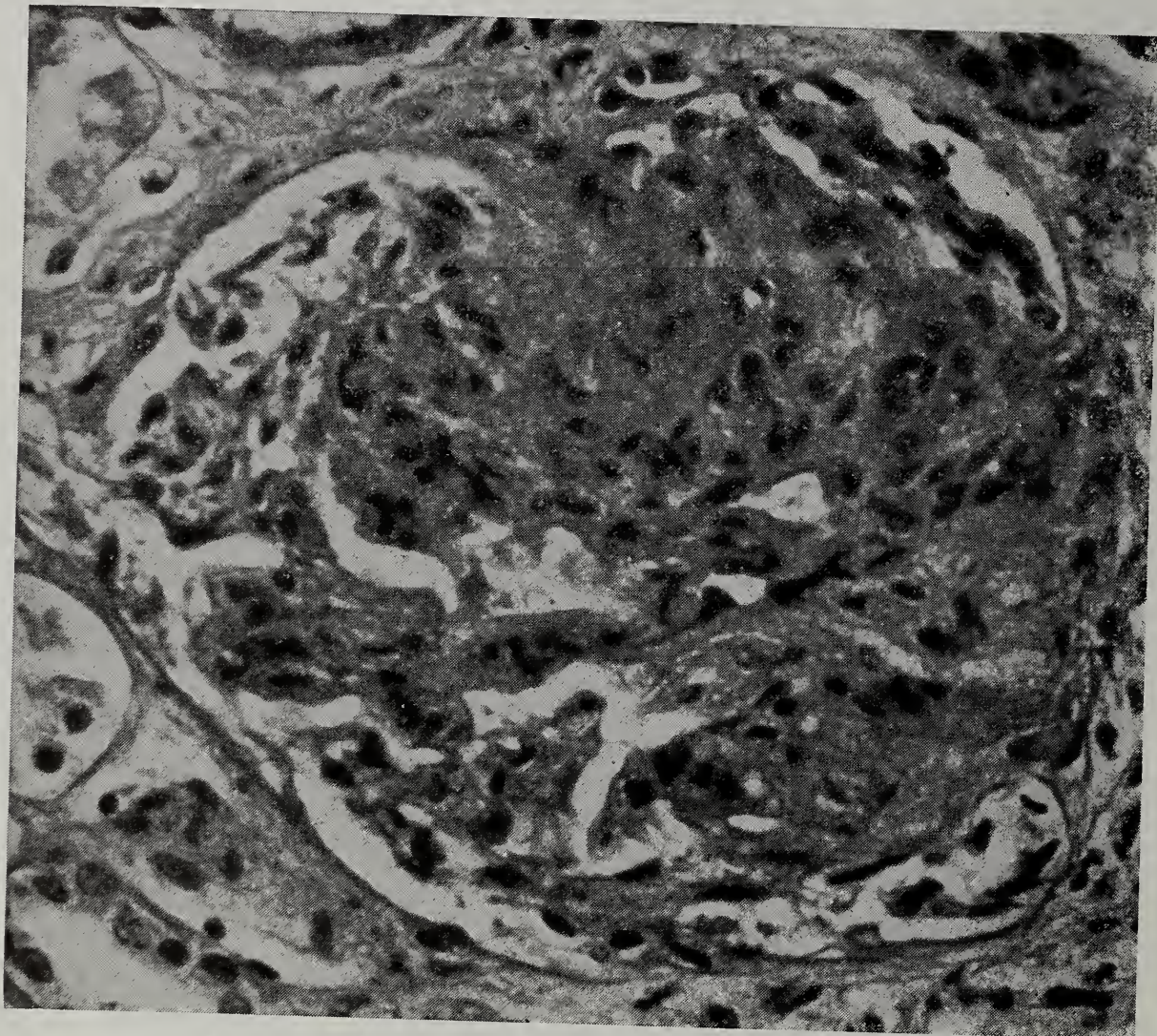


Fig. 2. Section of kidney showing capsular adhesions, crescent formation and focal scarring. H & E. x 600

When we considered the renal lesion, we had to think of three possibilities. One was that the patient had pre-eclampsia and that the lesion persisted after pregnancy. Epstein<sup>16</sup> has shown that 37% of women who had pre-eclampsia were hypertensive 12-18 years later as compared to 7% in a control group. Another possibility was that she had recovered from her preeclampsia and later contracted lupus erythematosus. The third possibility was that she never did have pre-eclampsia, but that

were hypercellular. There were adhesions and in some places there were crescents, but there was no basement membrane thickening. Bowman's space contained a proteinaceous exudate. In reviewing this needle biopsy, I found several normal glomeruli. These features are consistent with a glomerulitis, but it is not a specific picture and could be seen in a variety of conditions.

At autopsy, the kidneys weighed 200 and 185 gm, respectively. The capsule stripped



easily and left a smooth surface, but on cut section there was a blurring of the cortico-medullary junction. Microscopically, there were two main lesions. First, there was a very severe acute and chronic pyelonephritis with diffuse interstitial infiltrates of plasma cells, lymphocytes, and polymorphonuclear leukocytes, and necrosis of tubules. In addition, in the glomeruli there were capsular adhesions, some crescent formation, and focal scarring (Fig. 2). Basement membrane thickening was not easy to find, but was present focally (Fig. 3). Hematoxylin bodies were not observed,

I think that a diagnosis of systemic lupus erythematosus is justified in this case. In addition, there were many hyalin droplets in the convoluted tubules, which is a common finding in lupus.

As a consequence of lupus, she had hypertension, with hypertrophy of the left ventricle. The heart weighed 400 gm and the left ventricle measured 1.6 cm. There were no valvular lesions and no Libman-Sacks endocarditis; the blood vessels were remarkably free of atheroma. There was no other evidence of

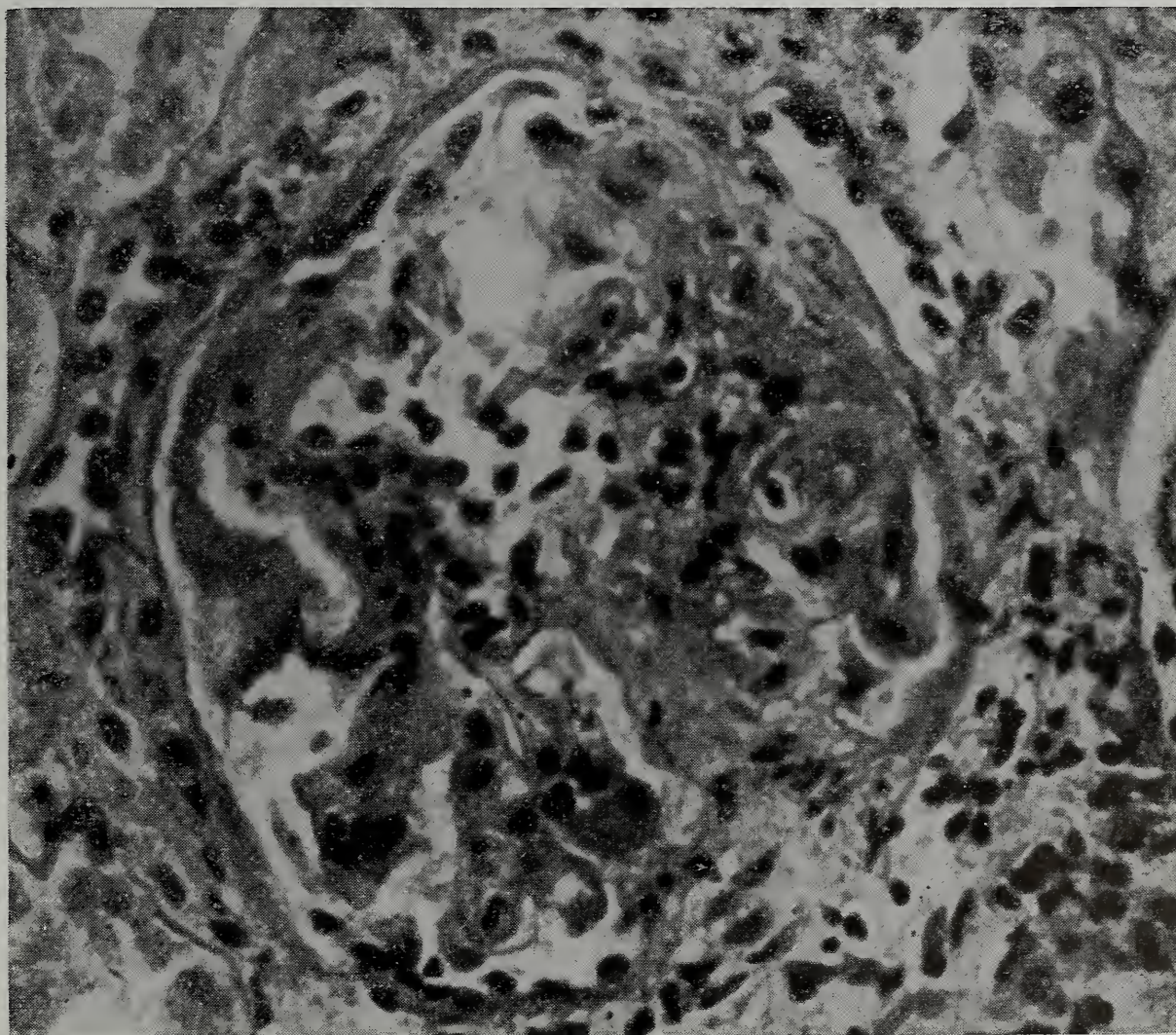


Fig. 3. Section of kidney showing focal thickening of glomerular basement membranes. PAS. x 600

but one would not expect to find them at this stage of the disease, after the patient has been on therapy for so long.

In old lesions of pre-eclampsia, one may see basement membrane thickening, but none of the other changes that I have described, so

lupus in any of the other organs or tissues examined.

With regard to the cerebral lesion, gross examination of the brain showed clouding of the leptomeninges both over the cerebral hemispheres and at the base of the brain, but



there was no definite exudate, and no evidence of hemorrhage or of herniation.

On microscopic examination, the leptomeninges were markedly thickened, but the inflammatory reaction was minimal and consisted only of small aggregates of lymphocytes and plasma cells and a diffuse infiltration by sparsely scattered histiocytes. (Fig. 4) This

into the Virchow-Robin spaces, but involvement of the brain tissue itself was minimal. Only in a few areas did I find some involvement of the superficial part of the cerebral cortex (Fig. 6).

A very interesting finding in this case was the extensive involvement of the leptomeninges of the spinal cord. This is not frequently

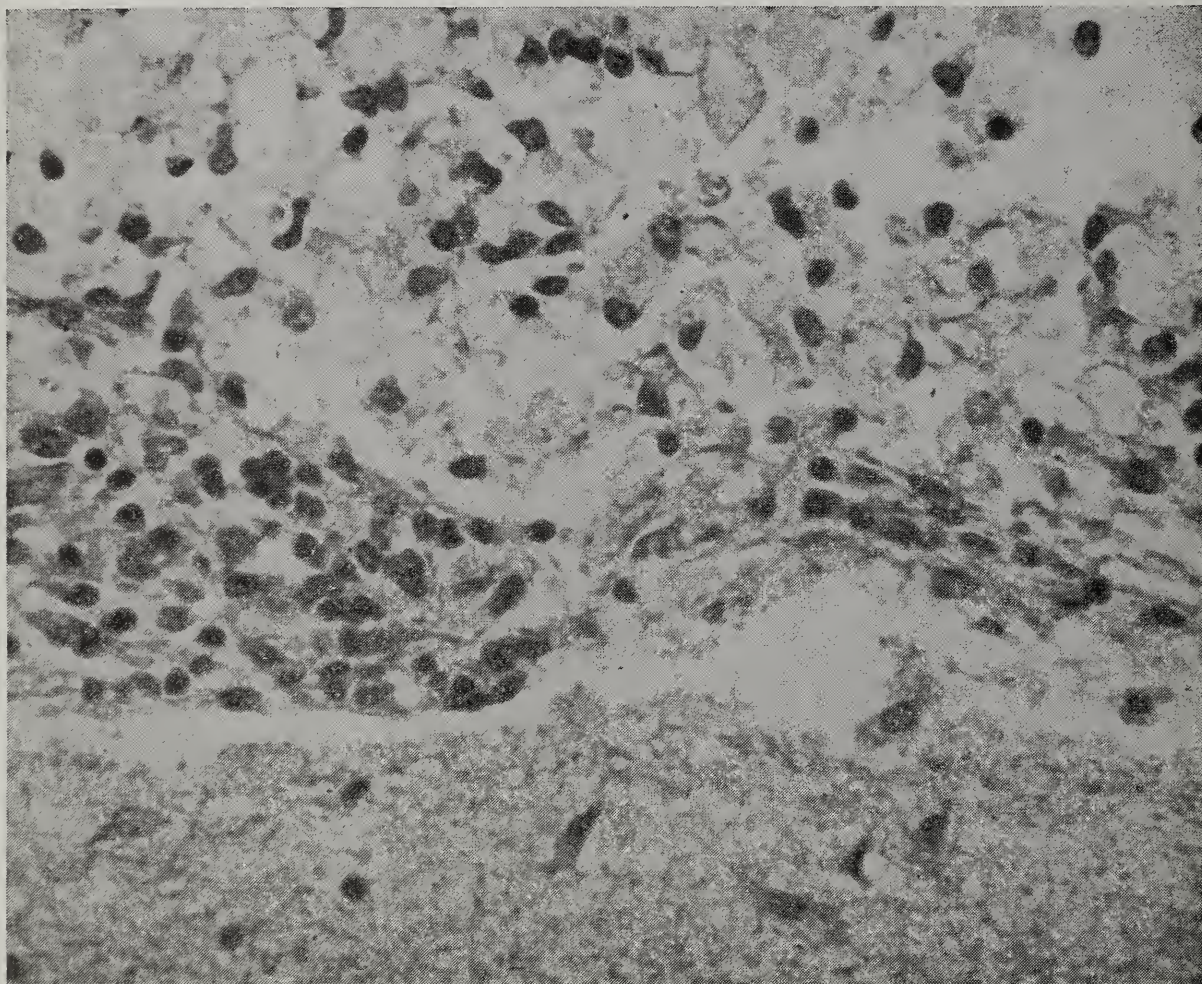


Fig. 4. Section of brain showing thickening of the meninges. At the lower left there is a small aggregation of lymphocytes and plasma cells. The leptomeninges is diffusely infiltrated by histiocytes. H & E x 600

tremendous thickening of the leptomeninges was found (in special stain) to be due to the presence of myriads of fungal bodies (Fig. 5). At higher magnification, each organism is seen to be surrounded by a clear halo, which is highly suggestive of *Cryptococcus neoformans*. A mucicarmine stain colored the organism a reddish color. The *Cryptococcus neoformans* is the only such fungus which is mucicarmine-positive, so even without cultural examination one is able to make a diagnosis of Cryptococcal meningitis. The disease did spread down

described in the literature. I think the main reason is that in most instances the spinal cord is not examined. The dorsal nerve roots and ganglia were also infiltrated by the Cryptococci (Fig. 7), resulting in Wallerian degeneration of the posterior columns of the spinal cord.

In addition to the involvement of the central nervous system, there were Cryptococcal lesions in the liver and kidneys. The only possible explanation for the blood in the GI tract was the presence of very small petechiae and



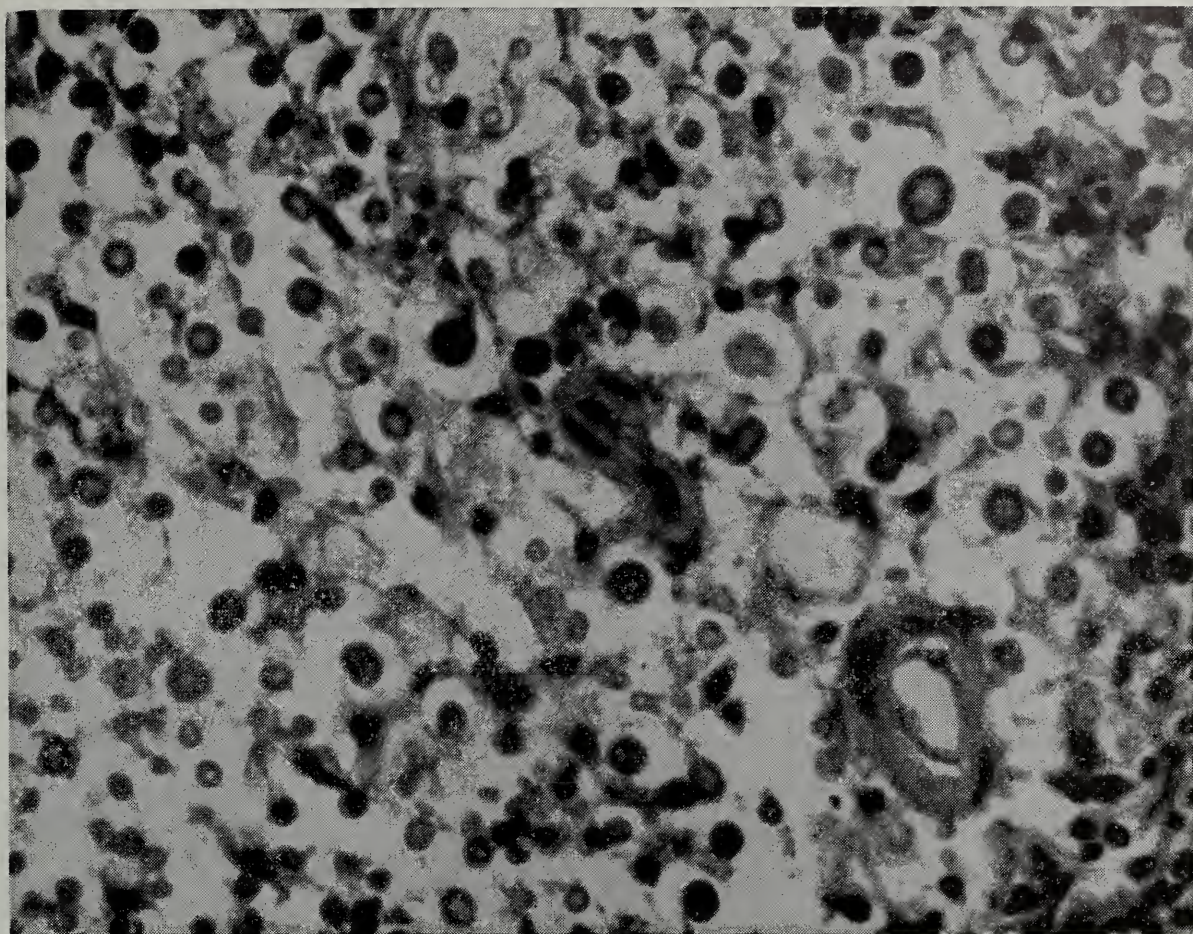


Fig. 5. Section of meninges showing the presence of numerous round or oval fungal bodies. Many are surrounded by a clear halo. PAS x 600

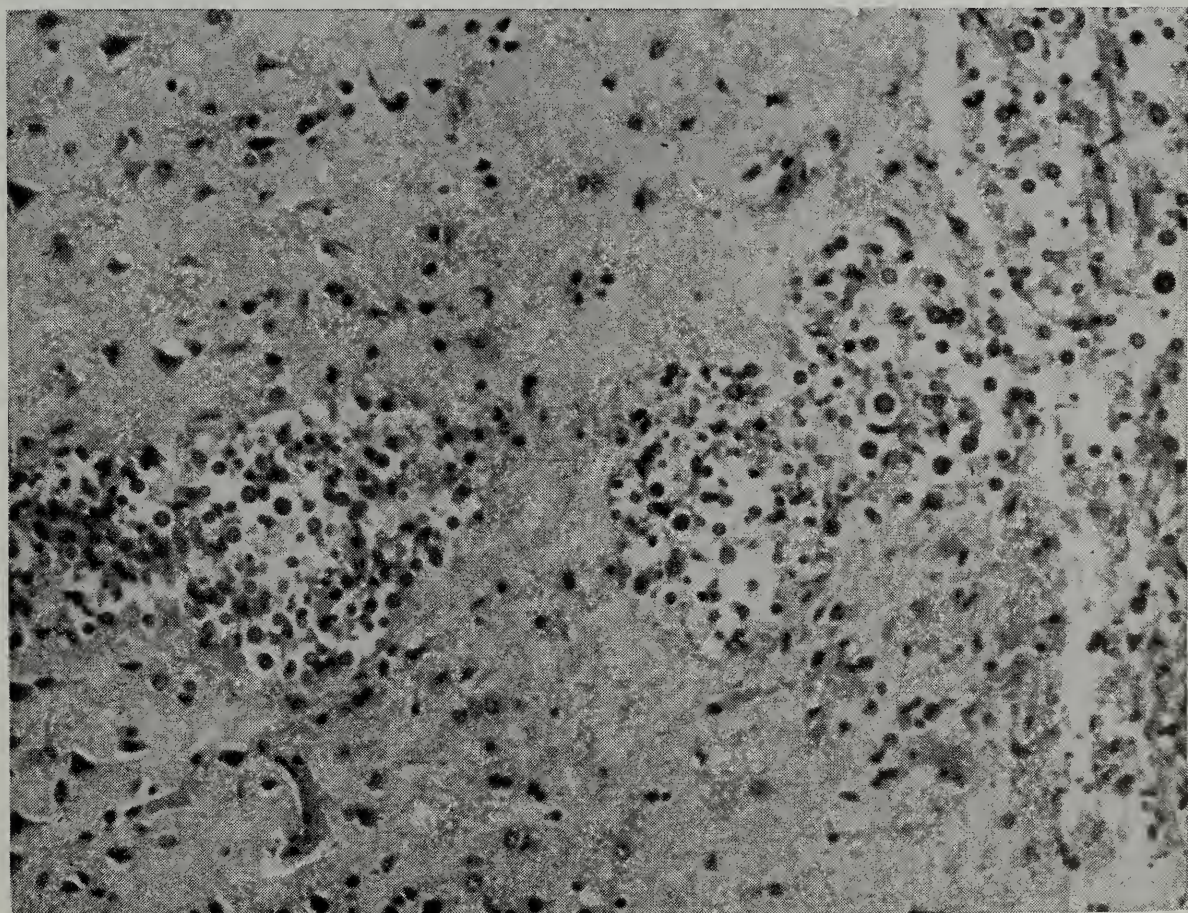


Fig. 6. Section of brain showing fungal lesions in cerebral cortex. PAS x 360



superficial erosions in the stomach. There was no blood in the stomach at the time of the autopsy.

The liver showed a moderate degree of fatty change, and terminally the patient had developed a very severe pulmonary edema and bronchopneumonia.

in Heptinstall's series,<sup>17</sup> six out of 26 cases of SLE developed acute pyelonephritis.

In conclusion, I would like to stress the fact that Cryptococcosis is not an uncommon disease. Since the beginning of 1969, Dr. Utz has had in this institution 15 cases. I would also like to stress the importance of early diag-



Fig. 7. Section of dorsal nerve root showing severe involvement with cryptococcal infection. H & E x 155

The pathogenesis of the Cryptococcal infection in this case is of interest. About half the cases of Cryptococcosis occur in otherwise healthy people, but the other half occur as opportunistic infections. The very numerous conditions which predispose to opportunistic infections include corticosteroid therapy, Cushing's syndrome, antibiotic therapy and renal failure with uremia—all of which were present in this patient.

As Dr. Cooke told you, in several series of cases less than one-third of patients with systemic lupus erythematosus die from progressive renal failure; a much more common cause of death is infection, mostly pulmonary infections. It is also very interesting to note that

Although there are two fairly good drugs for the treatment of this disease (Amphotericin B and 5-fluorocytosine), relapses are extremely common. In Dr. Utz's series of 15 cases, six have died. It is a very serious disease, and one should always consider it in the differential diagnosis of headaches and blurred vision.

*Dr. Cooke:* How about the ascites? Did she have ascites?

*Dr. Lurie:* No ascites at autopsy.

*Dr. Moon:* Was the organism found in the lungs?

*Dr. Lurie:* No. We looked for it in the lungs and we did not find it.



*Voice from Audience:* Was an India ink preparation done?

*Dr. Moon:* An India ink preparation was done in the Emergency Room at the outside hospital and the diagnosis was established prior to her being sent here.

*Dr. Mullinax,* what about your factor in uremia that interferes with L. E. preparations?

*Dr. Frank Mullinax:* It simply seems to be true that there is a dialyzable factor (not urea) in uremic serum which can be added to a lupus serum and will make the L. E. cell preparation negative. It works by inhibiting the first antigen-antibody phase of the L. E. cell reaction. In a sense then, it is an immunosuppressive agent, but I don't know yet exactly what it is.

*Dr. Elam C. Toone, Jr.:* Is this immunosuppressive agent the same agent in uremia which enables a person to retain a transplanted kidney or is this something distinctive?

*Dr. Mullinax:* The first observations about immunosuppression in uremia had to do with this phenomenon which increases acceptance of transplanted organs and thus involves delayed sensitivity. This really has not been studied because of the difficulty in studying delayed sensitivity. We would like to identify our factor which could be so much more simply studied *in vitro* and see if by chance it could be used in a delayed sensitivity situation. We may or may not have something interesting here. It may be some simple ionic change rather than something more subtle.

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# Diagnostic Laboratory Medicine . . . .

## Diagnostic Problems in Adenoviral Disease

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HARBANS SODHI, M.D.

Adenoviruses were originally discovered by chance in 1953 in a search for the etiological agent of the common cold,<sup>1</sup> and as the result of a survey during an epidemic of influenza-like disease in military recruits.<sup>2</sup> Since that time, 77 distinct types have been accepted as members of the adenovirus family: 31 from humans (two additional types have recently been reported but remain to be clearly characterized), 25 from monkeys, 18 from mammals, and 8 from chickens. The virologist's vocabulary did not include the term "adenovirus" until 1956, when it was coined by a Committee appointed to find an appropriate name for this group of newly isolated viruses of man.<sup>3</sup> It is important to recognize that a single type of adenovirus may cause different clinical syndromes and, conversely, that more than one type may be responsible for the same clinical pattern. The diseases produced by adenoviruses predominantly involve the respiratory tract and the eye. They can be described most conveniently as inducing three syndromes. (1) Acute respiratory disease (ARD), a self-limited influenza-like illness in which pneumonia occasionally occurs. It almost always affects military recruits and is predominantly associated with types 4 and 7. (2) Pharyngitis and pharyngoconjunctival fever, perhaps the civilian equivalent of ARD, but more frequently associated with sore throat and eye manifestations. Types 3 and 7 are most commonly associated with this syndrome, but types 5 and 21 have also been involved with epidemics and sporadic cases. (3) Conjunctivitis and epidemic keratoconjunctivitis may be present as the only evidence of adenoviral disease, or may be connected with infection of the respiratory tract and with certain sys-

temic manifestations. Keratoconjunctivitis is a very characteristic illness, occurring in epidemics, manifest by acute onset of chemosis, edema of periorbital tissues, tender preauricular lymphadenopathy, and superficial opacities of the cornea (ulceration does not occur). Type 8 adenovirus is the most common cause of this illness, but type 7 has occasionally been associated with the syndrome. Types 3 and 7 are the most common agents for simple conjunctivitis, but types 2, 5, 6, 9, and 10 have also been shown to be responsible.

There is now enough evidence indicating that adenoviruses are etiologically related to clinical syndromes other than those involving only the eyes or respiratory tract. In a number of outbreaks of adenoviral infection, gastrointestinal symptoms, such as nausea, vomiting and diarrhea were observed in addition to symptoms denoting involvement of the respiratory tract. Nevertheless, these agents may be responsible sometimes for gastroenteritis in the absence of respiratory disease. Intussusception in infants and young children has similarly been associated with adenoviral infection. Adenoviruses have been cultured from the feces and mesenteric lymph nodes of patients with acute mesenteric lymphadenitis, although the etiologic role has not yet been clearly defined. Cases of encephalitis and meningitis associated with adenoviral infection have been recently reported with increasing frequency. Exanthem of various types have been described. It should be emphasized that evidence of systemic infection is found most often in infants or young children with extensive or severe adenoviral pneumonia, including hepatomegaly, morbilliform rashes, meningitis and encephalitis, hemorrhagic phenomena, cardiac involvement and renal disease.



Rather recently, two new syndromes have been associated etiologically with adenoviral infection. (1) Acute hemorrhagic cystitis in children, according to a study<sup>4</sup> of 11 children 7 to 15 years of age. Type 11 adenovirus was recovered from the urine of 9 of these, and a significant rise in neutralizing antibody titer against type 11 adenovirus was demonstrated in all. No virus was isolated from the urine of children with other diseases. Type 11 adenovirus was reported<sup>4</sup> as the etiologic agent of this syndrome. (2) Reye's syndrome in a 14-month-old child who was admitted to the Medical College of Virginia Hospital and died 19 days after the onset of illness. The clinical findings and pathological change in this case were consistent with the syndrome first described in 1963.<sup>5</sup> Type 7 adenovirus was isolated from throat and stool specimens premortem and from lungs, kidneys, liver and spleen at autopsy. Electronmicrographs of the lung depicted adenoviral-like particles. A search of the literature failed to reveal any reports on the association of adenoviruses with Reye's syndrome. In only one instance, adenovirus was mentioned in reference to Reye's syndrome<sup>6</sup> without any information other than its inclusion among several viruses which are listed as possible incitants of this syndrome. Personal communication with the Author of that editorial article confirmed the absence of any reports documenting the association of adenovirus with Reye's syndrome.

Adenovirus infection can be diagnosed serologically and by virus cultures from respiratory and ocular secretions as well as from urine and feces. For isolation, infected material is inoculated onto monolayers of heteroploid continuous lines of human cells or into human embryo kidney cells. Cytopathic changes indicate the presence of virus. The virus is identified as an adenovirus by the complement-fixation test with hyperimmune rabbit serum. The specific type of adenovirus can be identified by hemagglutination-inhibition tests. The immunologic diagnosis of an adenovirus infection is most accurately done by neutralization tests with acute and convalescent phase sera. The complement-fixation test is the most

convenient assay procedure available, since all adenoviruses possess the common family cross-reactive antigen and, consequently, any type of adenovirus may be used. Unfortunately, complement-fixation assays detect fewer than 50% of the actual infections owing to the constant high levels of antibodies in many individuals.<sup>7</sup>

During the peak of influenza epidemics, mortality associated with a primary viral infection followed by secondary bacterial pneumonia has usually been associated with influenza A virus. However, when laboratory confirmation of the etiological viral agent is lacking, one should not automatically assume that Influenza A virus was associated with the primary infection, just because these fatal cases may have occurred at the peak of an influenza epidemic. As a matter of fact, adenovirus can be the initial microorganism associated with the series of events leading to the demise of the patient. It seems obvious that certain host factors, rather than the properties of the microbial agents *per se*, could determine the final outcome.

Practical control of adenovirus infection is dependent upon vaccination. Immunization with adequate formalinized and live virus vaccines has been experimentally successful, as would be expected from the lasting type-specific immunity produced by natural infections.<sup>7</sup> The use of adenovirus vaccine primarily appears to be indicated, however, to protect military recruits, since the incidence of adenovirus disease accounts at most for 4-5% of viral respiratory illness in civilians.<sup>8</sup> Vaccines for military use should contain at least types 3, 4, and 7 viruses, although other adenoviruses may become prevalent if only infection with these types is prevented. Under some circumstances (particularly in closed populations such as those in chronic disease hospitals or homes for orphans) a vaccine containing types 1 to 7 adenoviruses may be useful for infants and young children.<sup>7</sup> Despite some clinical needs and proved effectiveness, vaccines are still generally unavailable because of various problems in growing the virus in cell cultures and the definite oncogenicity of cer-

tain types of human adenoviruses for animals other than man.

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### Ease into Exercise

For all of you whose New Year's resolutions include "more exercise", a word of caution: Sudden vigorous physical activity, without any preceding warm-up exercise, may be hazardous to even a healthy heart.

In a UCLA School of Medicine study, 31 of 44 healthy firemen developed momentary abnormalities in their electrocardiograms (ECGs) after abruptly starting a strenuous running exercise. When they went through prior warm-up exercises, however, the abnormalities did not show up.

Dr. R. James Barnard, speaking at a recent American Heart Association meeting, said that neither the state of physical conditioning nor age had anything to do with determining which men had abnormal ECGs. The men ranged in age from 20 to 50.

ECGs record the electrical signals that cause the heart to beat. The disturbances that appeared indicated the heart was not getting

enough oxygen to meet the demands of the physical activity, because of inadequate blood flow through the heart's arteries. The findings may account for some heart attacks suffered by people with normal coronary arteries.

Ordinarily, heart attacks occur in people who have a condition called coronary atherosclerosis, which means the arteries have hardened and gotten plugged up with fatty deposits. Such obstruction, however, is not always found. This indicates that in certain persons, sudden physical activity might cause a blood shortage, even if only momentary, resulting in a heart attack.

The firemen, among other tests, had to suddenly jump on a treadmill—set for a 30% grade and moving at 9 miles per hour—and run for 10 or 15 seconds. The warm-up which averted abnormalities consisted of easy jogging in place for at least 2 minutes, or walking on the treadmill, with a gradual increase in its angle, for 6 to 8 minutes.



MACK I. SHANHOLTZ, M.D.  
*State Health Commissioner of Virginia*

## **The Multihandicapped Child**

The multiply-handicapped child has been the subject of vital concern to health, education, and social service personnel for many years. A Governor's Advisory Council on the Needs of the Handicapped Children requested a study by the Division of State Planning and Community Affairs to provide necessary information to assist in planning new supplemental or modified programs to meet the comprehensive health education and welfare needs of multiply-handicapped children. A survey identified over 2,000 children who were already known to official health agencies whose comprehensive needs were not met. It was estimated that the true number of such children might be four times that number.

Very young children are especially vulnerable to health impairment as they are in a state of rapid physical, mental and emotional development. Even "minimal" health impairments can have a profound effect on learning and development in preschool and early school years.

Early detection and maximum correction of disabilities early in life reduces the need for special services and institutionalization later. Fulfillment in the mainstream of life according to the individual child's best potential is more likely to be realized.

Studies by the Department of HEW show that 20-30% of chronic handicapping conditions at all ages could have been prevented or corrected by comprehensive health care in the first five years of life, and that approximately 60% could be prevented or corrected if health care were extended to age 15. Visual problems could be reduced up to 80%. Up to 85% of cases of adult hearing impairment are preventable since they result from untreated or

inadequately treated infection of the middle ear which occurred in the first two years of life.

The dramatic results of recently approved biologicals to control polio, rubella and rubella are well known. The medical community must maintain a constant effort to immunize the susceptible population.

### **New Laws**

The exciting trend in the demands of an increasingly knowledgeable and demanding public for services for handicapped children in Virginia have resulted in: (1) a new law requiring special education services for all handicapped children in the State of Virginia from the age of two to twenty-one by the State Department of Education in cooperation with local school divisions, and a survey by school officials to identify handicapped children from two to twenty-one years, by July, 1973. Obvious need—cooperation of private and official health agencies and personnel; (2) a new law which requires the reporting of handicapping conditions to school officials; (3) a new law that requires a physical examination for all children entering public school for the first time, the examination to be performed within 12 months prior to the date of school admission. The State Health Department is required to "prescribe the scope" of that examination, to have access to the records for follow-up services to the individual child, and for statistical studies for future planning. Local Health Departments are required to perform the examinations for medically indigent children. Up to one-third of the State's families may be indigent by Medicaid standards, but no appropriations were made available by

the legislature to enable local health departments to perform that volume of service.

### **Confidentiality**

Many local health directors and private physicians in practice have expressed caution and apprehension over the reporting of medical information to schools, of whom few have full time physicians on their staffs to whom to report and who can interpret this information appropriately to educational personnel and at the same time assure confidentiality. State Health and Education officials have agreed that each locality should have a plan jointly devised by local health and education officials with the local medical community for proper transmission and maintenance of such records which should be kept in a cumulative health record.

A working definition of a handicapping condition agreed upon by school and health personnel is any physical, mental or emotional condition which the physician feels may affect the child's academic progress, or which he suspects may require (a) special education services or (b) environmental adjustment. The report should be descriptive, avoiding medical terminology as much as possible.

A preexisting law requires reporting of hearing impairment, one example of a condition in which much preschool training is necessary if the child is to benefit from education.

Our official agencies in health and education and welfare are currently working to upgrade licensure mechanisms and standards, to provide them where none existed for programs of daycare, and residential treatment centers for handicapped children. Daycare programs for handicapped children, for instance, can no longer provide baby-sitting services alone. A program of preschool preparation for learning that meets special educational standards must be provided. Regardless of which agency has the primary responsibility for such facilities and services, strong inter-agency cooperation and participation is essential, and is practiced increasingly today.

### **Crippled Children's Program**

Many fragments of services exist about the State in the form of a well regionalized Bureau of Crippled Children's Program with its many speciality services for medically indigent children. Active participation by hundreds of excellent and highly qualified clinicians have contributed to the success of this program. The whole child is still the concern of the family physician or the clinic pediatrician and his staff who must coordinate the overall course of treatment and set priorities. Success cannot be achieved without the complete awareness and active coordination with local educational and social facilities.

### **Child Development Program, Bureau of Child Health**

The Bureau of Child Health plans closely with the State Department of Education to prepare continuous exchange of information with regard to handicapped children whose condition may affect their educational progress or their physical needs. A network of eight regional Child Development Clinics exists to provide team diagnostic evaluation and some treatment service for children with developmental delay or discrepancy, including learning disability. Patient referrals are accepted from any source regardless of ability to pay. These clinics are now inter-agency as well as inter-disciplinary as the State Department of Education assigns special education personnel to participate in diagnosis and act as liaison between school and clinic. Remediation is carried out in cooperation with the family doctor or pediatrician and other available community agencies and services, public and private. School services are a vital part of the treatment provided the young patients evaluated in these clinics, particularly as the legally required preschool educational services for handicapped children develop. Field or mobile satellite clinics are developing to alleviate two chronic problems in delivery of service: long waiting lists, and patient transportation problems.

Professional and program direction is pro-



vided in conjunction with the Medical College of Virginia which conducts the Master Clinic. Certain services are provided by the University of Virginia School of Medicine, and it is hoped that the new developing medical school in Tidewater will make important contributions in the future to this important program.

Curative treatment given late in the disease or disorder is extensive and expensive—not counting the cost to society of the loss of a

productive citizen, or the human suffering and despair. Promotion of physical, mental and emotional health, preventive medicine, lead to early detection and correction.

We may never have enough health workers trained to a high degree of specialization and sophistication to deal with far advanced problems of health and social disorder unless we intensify our efforts at the other end of the spectrum.

## Correspondence . . . .

### **Upgrading X-ray Equipment.**

To the Editor:

You will recall that the Food and Drug Administration's Bureau of Radiological Health has responsibility for developing and administering a radiation control for health and safety program as authorized by Public Law 90-602. Under that program, a radiation safety performance standard for diagnostic x-ray equipment was published on August 15, 1972, to become effective one year later.

The Bureau recently learned that some dealers have been advising physicians and other users that all existing x-ray equipment will have to be upgraded to meet requirements of the standard by the effective date of August 15, 1973. You may be able to perform a service for your readers by informing them that such advice is contrary to fact.

Upgrading of x-ray equipment now being used is not now required by the standard. State and territorial radiation control authorities

have been asked by the Bureau to so inform equipment users and dealers.

Our communication to the States and territories made one other point. This was that, although equipment now in use will not have to be modified before the standard becomes effective, owners installing manufacturer-certified components in such x-ray systems after next August 15 must install components of the type called for by the Federal standard.

Additional information about the standard may be obtained from the Division of Electronic Products, Bureau of Radiological Health, Food and Drug Administration, 12720 Twinbrook Parkway, Rockville, Maryland 20852.

Sincerely yours,

JOHN C. VILLFORTH,  
Director, Bureau of Radiological  
Health

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*Department of Health, Education and Welfare  
Public Health Service  
Food and Drug Administration  
Rockville, Maryland 20852*

# Medicare—Part B . . . .

CURTIS J. KELLY JD

## **Drugs and Biologicals**

Drugs and biologicals are covered only if: (a) they are of the type that cannot be self-administered; (b) they are not excluded as immunizations; (c) they are reasonable and necessary for the diagnosis or treatment of the illness or injury for which they are administered according to accepted standards of medical practice; and (d) they meet all the general requirements for coverage of items as "incident to" a physician's services (i.e., the drug must be furnished by the physician and administered by the physician or by his nurse under his personal supervision and the charge, if any, for the drug must be included in the physician's bill).

The term "drugs and biologicals" means those included or approved for inclusion in the latest official edition or revision of certain drug compendia, including (a) the U. S. Pharmacopoeia, (b) the National Formulary, (c) the U. S. Homeopathic Pharmacopoeia, (d) AMA Drug Evaluations (the successor publication to New Drugs) or (e) Accepted Dental Therapeutics (the successor publication to Accepted Dental Remedies).

Vaccinations or inoculations are excluded as "immunizations" unless they are directly related to the treatment of an injury or direct exposure to a disease or condition, such as, for example, antirabies treatment, tetanus antitoxin or booster vaccine, botulin antitoxin, antivenin sera, or immune globulin. In the absence of injury or direct exposure preventive immunization (vaccination or inoculation) against such diseases as smallpox, polio, diphtheria, etc., is not covered. (Flu injections are administered as a preventive measure and are excluded from coverage without regard to a patient's particular susceptibility to influenza.) In cases where a vaccination or inoculation is excluded from coverage, the entire charge will be denied.

Prescription and nonprescription drugs and biologicals purchased by or dispensed to a patient are not covered.

Payment for drugs and biologicals which cannot be self-administered can be made only if the physician administers them or supervises their administration and includes the charges for the services and the drugs in his bills. For example, in the case of an allergist who prepares drugs for a patient, no payment can be made for the drugs unless he also administers them.

The injection must be reasonable and necessary for diagnosis or treatment of the illness or injury in order for payment to be made. Determinations as to whether an injection is reasonable and necessary is made on the same basis as all other such determinations—with the advice of medical consultants and with reference to accepted standards of medical practice and the medical circumstances of the individual case.

Below are guidelines identifying four categories in which injections would not be reasonable and necessary according to accepted standards of medical practice.

1. *Injections not specifically indicated*—Payment should not be made for injections which are not considered by accepted standards of medical practice to be indicated as a *specific or effective* treatment for the particular condition for which they are given (although the injection may be accepted treatment for another illness).

a. Vitamin B12 injections—Based on professional medical advice, vitamin B-12 injections are specific therapy for—certain anemias: pernicious anemia; megaloblastic anemias; macrocytic anemias; fish tapeworm anemia. Certain gastrointestinal disorders: gastrectomy; malabsorption syndromes such as sprue and idiopathic steatorrhea; surgical and mechanical



disorders such as resection of the small intestine, strictures, anastomoses and blind loop syndrome. Certain neuropathies: posterolateral sclerosis; other neuropathies, associated with pernicious anemia; during the acute phase or acute exacerbation of a neuropathy due to malnutrition or alcoholism.

2. *Injection not for a particular illness*—medication given for a purpose other than for treatment of a particular condition, illness or injury. For example, the entire charge for vitamin injections given simply for the general good and welfare of the patient and not as accepted therapy for a particular illness should be excluded.

3. *Injection method not indicated*—injection is not considered an indicated method of administration according to accepted standards

of medical practice for the condition for which given.

4. *Excessive injections*—medication administered for treatment of a disease which exceeds the frequency or duration of injections indicated by accepted standards of medical practice as an appropriate level of care for that condition, unless there are extenuating circumstances which justify the need for additional injections. An example would involve the situation where standard medical practice indicates the use of parenteral penicillin or other antibiotics for the initiation of, but not for the entirety of, the course of treatment for an infectious disease. In such cases, the entire charge for those penicillin injections exceeding the initial standard dosage should be excluded unless there are special medical circumstances which justify additional injections.

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### New Insecticides More Harmful

American physicians are reminded of the probability of a sharp increase in insecticide poisonings with the ban on DDT and shift to different types of bug killers.

An editorial in the January 29th issue of the *Journal of the American Medical Association* points out that the types of insecticides that are replacing DDT are sometimes highly dangerous to people. A federal regulation banning virtually all use of DDT "is a culmination of social and political pressures that have represented DDT as the chief chemical villain in the modern environmentalist movement. This it almost certainly is not. The organophosphate insecticides, which will usually now be substituted for DDT, may prove to be the real villains."

It is true that the organophosphates, such as chlordion, EPN, parathion, phosdrin and TEPP, are less persistent in the environment. But they also are highly toxic to humans, and are easily absorbed through the intact skin, which DDT is not.

"Many deaths have been reported from parathion exposure; few if any from DDT."

Physicians are advised in the editorial of availability of AMA publications listing in detail medical recommendations for prevention and treatment of the poisonings.

The new federal regulations banning DDT in most instances took effect December 31.

Author of the editorial is Henry F. Howe, M.D., of the AMA's Department of Environmental, Public and Occupational Health.

# The Medical Society of Virginia . . . .

## Minutes of Council

A meeting of the Council of The Medical Society of Virginia was held at Society headquarters on Sunday, January 7.

*Members Present:* Dr. Carl E. Stark, Dr. John A. Martin, Dr. William S. Hotchkiss, Dr. Alvin E. Conner, Dr. Mack I. Shanholtz, Dr. Harry J. Warthen, Dr. William J. Hagood, Jr., Dr. Raymond S. Brown, Dr. Charles E. Davis, Jr., Dr. Carrington Williams, Jr., Dr. George J. Carroll, Dr. Baxter H. Byerly, Dr. H. C. Alexander, III, Dr. James C. Respass, Dr. Thomas L. Lucas, Dr. James Hal Smith and Dr. W. Leonard Weyl.

*Others Present:* Dr. Harry G. Hager, Jr., Second Vice-President; Dr. Duncan S. Owen, Jr., Third Vice-President; Dr. K. K. Wallace, Jr., Vice-Speaker; Dr. Alexander McCausland, Dr. William R. Hill and Dr. W. Callier Salley, AMA Delegates; Dr. F. Ashton Carmines and Dr. Michael A. Puzak, AMA Alternate Delegates; Dr. William R. Drucker, Dean, UVA School of Medicine, Charlottesville; Dr. John R. Jones, Executive Associate Dean, Medical College of Virginia; Dr. J. B. Funkhouser, Deputy Commissioner, Department of Mental Hygiene and Hospitals; Mr. James S. Imboden, AMA Field Service Representative, Columbus, Ohio; Mr. Robert G. Stuart, Executive Secretary, VaMPAC; and Mr. William R. Miller, Attorney.

## Previous Minutes

The minutes of the November 5, 1972 meeting of Council were considered and *a motion of approval was adopted.*

## Nurse Practitioners

Dr. Stark reported that he and Dr. Carroll had recently attended a meeting on this particular subject sponsored by the State Council on Higher Education. Interest in the role of the nurse practitioner is increasing daily and many questions must be answered in the very near future. Perhaps the biggest question at the present time is who should actually regulate the nurse practitioner. Should it be the Board of Medical Examiners, the Board of Nurse Examiners—or both? The problem is actually nationwide and not peculiar to Virginia alone.

Dr. Leon T. Bloodworth, a Director of the Nurse Practitioner Program at the Medical Col-

lege of Virginia, believes that nurse practitioners shall be responsible to, and dependent on, the physician and that the Board of Medical Examiners must ultimately be involved in their certification. It was stressed that licensure is not a question since the nurse will not function as an independent.

It was generally agreed that the responsibility for certification should rest with the Board of Medical Examiners, but that the Board of Nurse Examiners should be involved in the early stages of the program. The thought was also expressed that the curriculum of a nursing school should be planned with the nurse practitioner in mind.

Mention was made of the California program and it seemed to be the consensus that certification should be renewed each year as well as each time the nurse's employment is changed.

There was general agreement that the Board of Medical Examiners and Board of Nurse Examiners should make a joint effort to solve the problems connected with certification before any final decision is made.

## Legislative Roundup

Mr. Miller discussed a number of late developments on the legislative front—including a Bill which would define "death". The principal sponsor of the Bill is Dr. Ferguson Reid and he had specifically requested the opinion of Council. Mr. Ted Markow and Mr. William Crews, representing the office of the Attorney General, also discussed the Bill and commented on several questions raised by Mr. Miller.

The Bill seeks to define "death" in the absence of spontaneous circulatory and cardiac functions and also in the absence of spontaneous brain functions. It also covers those cases where hypothermia or poisoning by central nervous system depressant drugs are concerned.

The thought was expressed that the Bill as written would restrict the power to determine death in some cases to a fairly small number of physicians. Consequently, *a motion was adopted recommending deletion of that portion which reads "... a specialist in the field of neurology, neurosurgery, or electroencephalography . . ."* The part in question now reads *"... in the opinion of a consulting physician who shall be duly licensed, . . ."*

A motion which would have eliminated reference to a patient's medical history was defeated and the original language permitted to remain.



It was then moved by Dr. Brown that the Society support the Bill with the recommended amendment. *The motion was seconded and carried.*

Mr. Miller reported that a bill based upon the Maryland defective delinquent law had been drafted and was ready for introduction. He indicated, however, that it was necessarily very lengthy and posed a number of serious considerations for the General Assembly. For example, it provides for a new institution. Although some doubt was expressed that the General Assembly would enact the legislation at this particular session, it was regarded as an excellent start.

Mr. Osburn discussed a number of Bills carried over from the 1972 Session of the General Assembly. These Bills had to do with the Board of Medical Examiners, a Statewide formulary, workmen's compensation, certificates of need, physicians' assistants, no-fault insurance, etc.

Mention was made of the many contributions by Dr. Gene Weston in educating the public concerning the disadvantages of a Statewide formulary.

It was learned that an amendment has been proposed to Senate Bill 108 (certificate of need) which would deny a license to a hospital unless it maintains an open staff and participates in Federal and State Medicare and Medicaid Programs. An open staff was defined as one composed of all physicians in the community who are ethical and competent, following the usual process of application, credentialization and appointment.

Fear was expressed that the proposed amendment would make every hospital in Virginia a "general hospital" and result in insurmountable problems. *A motion by Dr. Hotchkiss reaffirming the Society's support of Senate Bill 108 and expressing opposition to the proposed amendment was seconded and adopted.*

A Bill to permit the administration of drugs by pharmacists or pharmacy technicians was considered in some detail. A motion by Dr. Hagood to oppose the Bill was amended in such manner as to withhold opposition until a further study can be conducted by a joint committee representing the Society and Virginia Pharmaceutical Association. *The motion was then adopted as amended.*

Dr. Hagood reminded Council that the House of Delegates had adopted three resolutions requiring follow-through action. One expressed opposition to the contingency fee system in the practice of law; the second called for support of legislation requiring the labeling of prescription medication containers unless otherwise directed by the physician; and the third endorsed legisla-

tion which would require the posting of a \$2,500.00 bond by plaintiffs instituting malpractice suits against physicians—if such suits include claims for punitive damages.

### **Joint Meeting with Nurses**

Dr. Stark reported that the President of the Virginia Nurses' Association had requested a joint meeting of Council and the governing board of the nursing group. It was Dr. Stark's feeling that matters of mutual interest and concern should first be discussed at the Committee level. He was particularly anxious that the Society's Committee in Nursing not be bypassed.

### **Joint Practice Council**

Dr. W. Nash Thompson, Chairman of the Committee on Nursing, reported on a recent conference of the National Joint Practice Council. He stated that joint practice councils are designed to bring the two professions together. Such joint committees already exist in a number of states.

Dr. Thompson then read a resolution which had been approved by all members of the Committee on Nursing. The resolution called for the establishment of a Virginia Joint Practice Commission and an appropriation of \$200.00 for this purpose. It was recalled that the House of Delegates had considered a similar resolution and voted to postpone any action until the release of a report of the Governor's Committee on Allied Professions.

A motion by Dr. Respass which would amend the resolution by providing for a feasibility study was withdrawn. Dr. Hagood then moved that the President request the appropriate Section Chairman to personally consult with the Nursing Committee and Virginia Nurses' Association and report his findings and recommendations at the next meeting of Council. The motion also commended Dr. Thompson and his Committee on their excellent work. *The motion was seconded and adopted.*

### **MCV Nurse Practitioner Program**

A request was made that Council consider endorsement of the "Nurse Practitioner Program" currently in operation at the Medical College of Virginia. A great amount of interest was expressed in the Program and Dr. Bloodworth stated that he would see that pertinent material was made available for distribution.

### **New Hospital at MCV**

Council had been requested to endorse a proposed new hospital at the Medical College of Virginia. The new hospital would replace cer-



tain existing structures at a total estimated cost of approximately \$90 million. Dr. Jones stated that a great deal of replacement is needed and the new hospital represents the major portion of a 10-year building program. He indicated that approximately \$79 million will, hopefully, be obtained through a revenue bond issue and that these bonds should be paid off within thirty years. The General Assembly is being asked to appropriate \$526,332.00 for the purpose of completing working drawings and Society endorsement is needed at this time.

Dr. Williams reported that Richmond Academy of Medicine has endorsed the new hospital.

It was then moved by Dr. Brown that The Medical Society of Virginia also endorse the new hospital program. *The motion was seconded and carried.*

### **Congressional Luncheon**

Council was reminded that the time is once more at hand for a decision concerning an annual luncheon for Virginia's Congressional delegation. The luncheon is hosted by the Committee on National Legislation and is normally held in the Speaker's Dining Room of the Capitol—usually on a Tuesday in April or early May. Total cost is approximately \$200.00.

Everyone agreed that the luncheons should be continued and *a motion by Dr. Hotchkiss to proceed with the necessary arrangements was seconded and adopted.*

### **Dr. Palmer**

Dr. Richard Palmer will seek re-election to the AMA Board of Trustees when the AMA holds its Annual Convention in New York. The Medical Society of Virginia is most anxious to assist in the re-election effort and it has been suggested that a hospitality suite be sponsored during the meeting in New York. The estimated cost falls between \$1,000-\$1,500.

It was agreed that the Society should do everything possible to obtain the re-election of Dr. Palmer and *a motion to approve the proposed hospitality suite was seconded and carried.*

### **Hospital Boards of Trustees**

Council was advised that the AMA House of Delegates has reaffirmed its policy concerning the advisability of having physicians serve on hospital governing boards and their action committees. The Medical Society of Virginia is on record as endorsing this policy and its views have been made known to the Virginia Hospital Association.

Dr. Stark expressed a great deal of interest in this particular policy and is anxious to learn to what extent it has been implemented over the State. Brought out was the fact that the Joint Commission on the Accreditation of Hospitals also supports this policy.

It was then moved by Dr. Hotchkiss that the Society reaffirm its position and send copies of the policy statement to the Chairman of all hospital boards of trustees—along with a request for information on affirmative action. *The motion was seconded and carried.*

### **Vice-Councilors**

The role of Vice-Councilors was discussed at some length and it was agreed that they should be kept well informed concerning all Council activities. It was recognized, however, that the space factor is such that additional participants and guests cannot easily be accommodated.

### **Joint Medical-Pharmaceutical-Hospital Committee**

Dr. Hagood had several thoughts concerning the resolution adopted by the House of Delegates in November recommending that The Medical Society of Virginia, Virginia Pharmaceutical Association and Virginia Hospital Association conjoin for the purpose of identifying mutual problems, discussing solutions, etc. He believed that those representing the Society should be chosen from both urban and rural areas. He also suggested that at least one representative be associated with a medical school. Dr. Hagood also recommended that the executive officers of the three organizations be requested to sit in on the discussions.

Dr. Hagood went on to say that if this particular undertaking is successful, it is certain to result in a better image for all concerned. The thought was expressed that perhaps an ad hoc committee could be appointed for the purpose of implementing the House directive. A suggestion was also made that those members representing the Society be chosen from the already existing Hospital Advisory and Pharmacy Committees.

### **Virginia Association of Counties**

Dr. Hagood described some of the legislative activities of the Virginia Association of Counties and suggested that this particular organization could be a most helpful ally. The Association has six full-time committees—including one having to do with health care—which seek to keep the Association advised on all developments. The



Virginia Association of Counties is apparently well thought of and wields a considerable amount of influence. It was Dr. Hagood's feeling that The Medical Society of Virginia would do well to keep members of the Association advised of its legislative objectives.

### **Annual Meeting Review**

Council was advised that dates and locations for the Annual Meeting have been confirmed through 1978. Dr. McCausland reported that physicians in the Roanoke area are most anxious for the Society to meet there more often and assured everyone that the Hotel Roanoke has improved its facilities and services tremendously.

Dr. Lucas then reported that the Marriott-Twin Bridges Motor Hotel, Arlington, was also anxious to have the Society back at an early date. The thought was expressed that perhaps the 1979 meeting should properly be held in Northern Virginia.

A question was then raised as to why the Society had never used The Homestead for an annual meeting. It was learned that facilities at The Homestead had not been adequate for a meeting which featured a considerable number of exhibits, scientific sessions, banquets, etc., and which attracted a total registration of 750-1,000. It was learned that a new conference facility had just been completed at The Homestead and the Secretary was requested to look into the possibility of having a future meeting held there.

In view of the many invitations for 1979, it was agreed that a final decision should be postponed until the Spring meeting of Council.

### **Richmond Academy of Medicine**

It was recalled that Council, during its meeting on November 5, was briefed concerning the possibility of having the Richmond Academy of Medicine join with The Medical Society of Virginia in the construction of an additional wing to the Society's present headquarters. Such a move would hinge on the sale of the present Academy building as well as the results of a feasibility study.

Dr. Williams reported that the situation has changed somewhat—principally because the Confederate Museum is no longer interested in obtaining the Academy building for museum purposes. He indicated, however, that the Medical College of Virginia Alumni Association is interested in making a move and that the Academy has been approached in this regard. It had been hoped that the Society could give the Alumni Association some indication of its thinking before the General Assembly convened.

It was unanimously agreed that Council could not possibly take any action at this time and that the matter would first have to be referred to an appropriate Committee for a feasibility study.

### **Genetic Enzyme Studies**

The Medical Society of Virginia had been requested by the fiscal intermediary of the CHAMPUS Program in Virginia to render an opinion as to whether the genetic enzyme studies being performed by a particular metabolic and genetic institute in Richmond could be considered good medical practice. It was learned that the institute in question has been the subject of an extensive investigation by both the Richmond Academy of Medicine and State Board of Medical Examiners. As a result of these investigations, legal action is imminent by the Office of the Attorney General. In view of these developments, Council did not believe that it was in a position to take any action at this time.

### **Safety Glazing**

The Virginia Safety Glazing Committee had requested that The Medical Society of Virginia sponsor and support legislation designed to eliminate personal injuries resulting from glass accidents. The proposed legislation would require the use of safety glazing materials in hazardous locations in residential, commercial and public buildings. It was also learned that the Department of HEW is quite interested in seeing such legislation enacted at the State level.

A motion to table the matter until the next meeting of Council was seconded and adopted.

It was then moved by Dr. Williams that the matter be removed from the table in order that it could receive further consideration. The motion was seconded and carried.

There followed considerable discussion during which a question was raised concerning the cost potential should such legislation be enacted. Since these figures were not available, it was moved by Dr. Weyl that the matter be referred to an appropriate Committee for study and recommendations. *The motion was seconded and carried.*

### **New Billing Procedure**

Council was advised that the Society's new computer billing procedure has received both praise and condemnation. Most of the protests stem from the feeling that the statement is much too confusing and misleading. A number of physicians object to the total being shown—particularly since it includes AMA dues and a contri-



bution to VaMPAC. They believe that some method should be found to more clearly stress the nonmandatory aspects of the statement.

Mr. Moore reported that the new billing procedure was accomplishing many of its objectives. It has already resulted in a considerable saving in man hours and the overall cost is expected to be less. It was also learned that the return rate is ahead of last year and that the majority of members seem to be having little, if any, difficulty with the statement.

It was then moved by Dr. Hotchkiss that the new procedure be continued. *The motion was seconded and carried.*

### Continuing Education and Licensure

Dr. Carroll reminded Council that the Society's Committee on Medical Education has, for several years, been studying the relationship of continuing education to licensure. He stated that the State Board of Medical Examiners has been very much interested in this question and that there is some feeling that the Society has been moving much too slowly in this particular area. As a result, the Board had prepared a statement for Council's consideration which stressed documentation of continuing education as a high priority item in insuring competent medical care for all Virginians. It went on to propose that the following be incorporated in the Virginia Code:

1. Documentation of Continuing Education should be a requirement for licensed practitioners in the State of Virginia.
2. Continuing Education requirements would be similar to those outlined by the AMA Physicians Recognition Award Program.
3. Physicians not adhering to these requirements would be reported by the State Board of Medical Examiners to The Medical Society for its investigation and recommendations as to possible disciplinary action.

There followed considerable discussion during which disappointment was expressed over the proposal to make continuing education requirements mandatory. Attention was called to an editorial by Dr. William H. Kaufman which appeared in the September, 1972, issue of the Virginia Medical Monthly. The editorial sounded a word of caution with reference to compulsory continuing education. It was also brought out that the American Medical Association has long favored the voluntary approach. A suggestion was made that the Society contact the various

specialty groups and seek to learn how it can assist them in their continuing education efforts.

A motion by Dr. Respass calling for the appointment of a committee to determine the Society's role in continuing education, its tie to relicensure and relationship to other systems of medical education was lost for want of a second.

Dr. Weyl then moved that the Board of Medical Examiners be advised that The Medical Society of Virginia is actively studying the problem and will have a definitive statement ready for distribution in June of this year. *The motion was seconded and carried.*

### Personal Holding Company

It was learned that at least one Virginia physician, currently practicing as a one-man-corporation, has been ruled a personal holding company by the Internal Revenue Service. It was feared that should this ruling be permitted to stand, it would set a very dangerous precedent. Personal holding companies are subject to a 70% Penalty Tax. A question was raised as to whether The Medical Society of Virginia should interest itself in the matter and perhaps seek to intervene as a "Friend of the Court".

Following considerable discussion, it was moved by Dr. Lucas that Mr. Miller be requested to investigate the circumstances surrounding the ruling in question and determine whether it would be in the interest of the Society as a whole to intervene as a "Friend of the Court". The motion further provided that should such action appear advisable, the Executive Committee would be empowered to issue the necessary directive. *The motion was seconded and carried.*

### Blue Cross-Blue Shield

In keeping with a number of requests, particularly from members in the Northern Virginia area, Council was requested to approve an endorsement to the Society's Blue Cross-Blue Shield program for certain outpatient services. The approximate monthly cost would be as follows:

Subscriber Only .....	\$ .68
Subscriber & 1 Minor.....	1.02
Subscriber & Family.....	1.40

*A motion by Dr. Weyl to approve the outpatient endorsement was seconded and carried.*

It was then recalled that the Insurance Committee had recommended the inclusion of skilled nursing home benefits in the Blue Cross-Blue Shield Program, if at all possible. When an effort was made to obtain the necessary facts and figures, it was learned that such an inclusion would



create problems for members in the Roanoke Plan area. That particular Plan does not have such an endorsement operational at this time. Consequently, it was moved by Dr. Weyl that Blue Cross of Virginia consult with the Roanoke Plan and take such action as might be required to add skilled nursing home benefits to the Society's program. *The motion was seconded and adopted.*

#### **F.D.A.**

Dr. Respass reported that the Albemarle County Medical Society had unanimously endorsed the following resolution on January 4:

"RESOLVED, that the Albemarle County Medical Society strongly desires that Dolophine Syrup continue to be available by prescription in community pharmacies as an anti-tussive agent and pediatric analgesic."

The resolution was adopted as a result of an action being taken by FDA to remove Dolophine Syrup from the market. Hope was expressed that The Medical Society of Virginia would lend its support in the effort to convince FDA that its action should be rescinded.

*A motion to contact FDA and protest its action in removing Dolophine Syrup from the market was seconded and adopted.*

Dr. Davis indicated that the Society should also object to the removal of Sulfasuxidine and *a motion to write FDA in this regard was seconded and carried.*

Dr. Brown requested that similar action be taken with reference to Polymagma. *A motion to this effect was seconded and adopted.*

It was then moved by Dr. Weyl that the Society strongly object to FDA's policy of removing medications from the market without prior consultation with those physicians who compose the practicing community. The motion would urge that such consultations always be held before final action leading to withdrawal is taken. *The motion was seconded and carried.*

#### **Liaison Committee**

Dr. Stark stated that a Liaison Committee to the Virginia Optometric Association had not yet been appointed and that he was hoping to first obtain an official expression from the Virginia Society of Ophthalmology and Otolaryngology along with any suggestions and recommendations that organization might care to make. *A motion supporting the President in his handling of the matter was seconded and adopted.*

#### **VaMPAC Board**

Council was advised that a vacancy exists on the VaMPAC Board of Directors and that Dr. W. Copley McLean, Charlottesville, had been recommended as a nominee. It was agreed that Dr. McLean would make an excellent Board member and his election was unanimous.

There being no further business, the meeting was adjourned.

ROBERT I. HOWARD, *Secretary*

APPROVED:

CARL E. STARK, M.D., *President*

### Julius Caesar, Estes Kefauver and the FDA.

"The evil that men do lives after them,  
The good is often interred with their bones."

Act III, Sc. 2, Line 79.

**E**STES KEFAUVER must have accomplished some good along the way, otherwise the citizens of Tennessee would not have elected him to the United States Senate, but the evil he did as chairman of the committee dealing with drug matters continues to plague the medical and pharmaceutical world. The January 8 issue of *Newsweek* contains an article by Milton Friedman that explains, in part, the capricious and domineering course the Food and Drug Administration has followed during the past decade.

The Kefauver hearings and the thalidomide tragedies (the latter, of course, did not occur in this country) prompted Congress in 1962 to require the FDA to apply stiffer standards for the approval of drugs. Friedman pointed out that this mandate placed the FDA officials in the unenviable position of possibly approving a drug that might have unanticipated side effects with dangerous potential, or refusing to approve a drug that might be capable of saving many lives. If the first error was made, the media of the nation would hasten to publicize the mistake and the FDA officials would be held up to public censure. If, on the other hand, a life saving drug was denied, and from its lack, thousands might perish as a result of this decision, this blunder, in all probability, would not become general knowledge, and the FDA would still be home free.

Which alternative would a politician take? Need we answer! In the eyes of the FDA every new drug is suspect, and there has been a natural curb on research by the pharmaceutical industry. A recent address by Professor Sam Peltzman, an economist at UCLA, pinpointed the reluctance of larger drug houses to embark on time-consuming and costly research under present restrictions. "In the twelve years prior to 1962, 41.5 'new chemical entities'—that is, really new drugs—were introduced on the average each year; in the next eight years, 16.1. And their introduction was delayed by two years on the average."

Peltzman estimated that the 1962 drug amendments, as interpreted by FDA, "cost consumers of drugs—over and above any benefits—\$250 to \$500 million per year at a very minimum. This is 5 to 10 per cent of the money



spent annually on drugs. It is as if a 5 to 10 per cent tax were levied on drug sales and the money so raised were spent on invisible monuments to the late Senator Kefauver." And it might be added that no mention has been made of the cause of this wastage or the extent of these additional health expenditures by the current Senator Kennedy, who constantly harps upon medical costs and emphasizes that the government can do it both better and cheaper.

All that Friedman and Peltzman have told us is provocative and exasperating but after all it is understandable, for human nature is much the same everywhere, and especially so in Health, Education and Welfare, and in its numerous subsidiary empires and bureaucracies. But the question that passes all understanding is why drugs that have stood the test of time are also arbitrarily banned and withdrawn from circulation.

There is a ground swell of resentment on the part of practicing physicians throughout this country that bodes ill for the "arm-chair" physicians who fear to compete with their fellow men and retire to the anonymity of a desk in FDA. On January 7 Councilors from the First, Second, Seventh and Tenth Districts spoke to a motion made by Dr. W. Leonard Weyl, and passed unanimously by Council, that The Medical Society of Virginia "strongly object to FDA's policy of removing medications from the market without prior consultation with those physicians who compose the practicing community." It was further urged "that such consultations always be held before final action leading to withdrawal is taken."

Dr. James C. Respass of the University reported that the Albemarle County Medical Society had expressed strong desire that *Dolophine Syrup* continue to be available by prescription as an anti-tussive agent. Dr. Raymond S. Brown, of Gloucester, urged that *Polymagma* be not removed from the pharmacopeia and Dr. Charles E. Davis, Jr., of Norfolk, spoke strongly against the arbitrary withdrawal of both *Sulfathalidine* and *Sulfasuxidine*. The latter two drugs have been the chief mainstay in colon surgery for the past three decades and have played a major role in reducing the mortality following bowel resections to a fantastically low level.

The highhanded manner in which this decision was handled is reflected in a letter Dr. Davis received from the manufacturer of these preparations. They were "caught by surprise, very much as you (Dr. Davis) have been, due to the fact that no communication was delivered . . . prior to the publication of the intention of the Food and Drug Administration to order the discontinuance of these products because the NAS-NRC Committee classified them as 'less than effective'. The classification was handed down in

spite of the great amount of use of these products by physicians and surgeons for many, many years."

Reverting to Shakespeare "Upon what meat doth this our Caesar feed, that he is grown so great?"

The leading guest editorial in this issue, prepared by Dr. William J. Hagood, Jr., of Clover, and Speaker of the House, epitomizes the feeling of practitioners throughout the State. Numerous letters are being forwarded to our senators and congressmen and the more they receive the more sensitive FDA will become. Nothing makes an administrator squirm like a letter from the "Hill". This editorial can best be concluded by quoting the final paragraph in Milton Friedman's article captioned:

"Should FDA Be Abolished?"

"The 1962 amendments to the Food, Drug, and Cosmetic Act should be repealed. To comply with them, FDA officials must condemn innocent people to death. In the present climate of opinion, this conclusion will seem shocking to most of you—better attack motherhood or even apple pie. Shocking it is—but that does not keep it from also being correct. Indeed, further studies may well justify the even more shocking conclusion that the FDA itself should be abolished."

H. J. W.



## **Calendar of Events**

NATIONAL MEDICO-LEGAL SYMPOSIUM—Sponsored by American Medical Association and American Bar Association—International Hotel—Las Vegas, Nevada—March 22-25, 1973.

NATIONAL CONFERENCE ON RURAL HEALTH—Statler Hilton Hotel—Dallas, Texas—March 29-30, 1973.

TRI-STATE MEDICAL ASSOCIATION—Annual Convention—Charleston, South Carolina—March 29-April 1, 1973.

ANNUAL CLINICAL CONFERENCE—Sponsored by Louise Obici Memorial Hospital—"The Practical Application of Radioactive Isotopes"—National Guard Armory—Suffolk—April 4, 1973.

PEDIATRICS DAY—Sponsored by Department of Pediatrics, Medical College of Virginia—Richmond—April 6, 1973.

CHILD ABUSE—Special TV Presentation Sponsored by Stanhope Junior Woman's Club—Channel 23—8:00 p.m.—April 10, 1973.

SPRING REFRESHER COURSE FOR SPECIALISTS—Sponsored by Gill Memorial Eye, Ear, Nose and Throat Hospital—Hotel Roanoke—Roanoke—April 15-18, 1973.

JOINT COMMISSION ON ACCREDITATION WORKSHOP—Sponsored by Virginia Hospital Association and The Medical Society of Virginia—Sheraton Inn, Military Circle—Norfolk—April 17, 1973.

PEDIATRIC ENDOCRINE POSTGRADUATE CONFERENCE—Sponsored by Department of Pediatrics, University of Virginia School of Medicine—Charlottesville—April 20-21, 1973.

MEDICAL ETHICS—National Conference—Sponsored by Judicial Council of American Medical Association—Washington Hilton Hotel—Washington, D. C.—April 26-28, 1973.

RADIOPHARMACEUTICALS—Sponsored by Virginia Chapter, American College of Radiology—Boar's Head Inn—Charlottesville—April 28-29, 1973.

VISITING PROFESSOR IN INFECTIOUS DISEASES—Sponsored by Departments of Medicine, Microbiology, Pathology, Pediatrics and Division of Infectious Diseases of the Medical College of Virginia—Richmond—May 7-8, 1973.

VIRGINIA HEART ASSOCIATION—Scientific Sessions for Physicians—Sheraton Motor Inn—Fredericksburg—May 22-24, 1973.

SPRING FORUM FOR CHILD PSYCHIATRY—Sponsored by Virginia Treatment Center for Children and Division of Child Psychiatry, Medical College of Virginia—Richmond—May 25, 1973.

ANNUAL ORTHOPEDIC ALUMNI SEMINAR—University of Virginia Medical School Auditorium—Charlottesville—May 31, 1973.

ANNUAL ORTHOPEDIC RESIDENTS PAPERS—Sponsored by Division of Orthopedic Surgery—Medical College of Virginia—Richmond—June 1, 1973.

AMERICAN ELECTROENCEPHALOGRAPHIC SOCIETY—Annual Meeting—Statler Hilton Hotel—Boston, Massachusetts—June 15-16, 1973.

AMERICAN MEDICAL ASSOCIATION—Annual Meeting—New York—June 23-28, 1973.

## New Members.

The following members were received into The Medical Society of Virginia during the month of December:

Mohammad Hosein Changizi, M.D., Fairfax  
Alvin F. Coburn, M.D., Charlottesville  
Ivan Keith Crosby, M.D., Charlottesville  
Jack William Hall, M.D., Danville  
Samuel Hutzon Hay, M.D., Richmond  
Desiderio L. Hebron, Jr., M.D.,  
Fredericksburg

Richard S. Himes, M.D., Newport News  
Harvey Barry Jacobs, M.D., Reston  
Erika Latchis, M.D., Falls Church  
Joseph A. Leistyna, M.D., Culpeper  
Stuart A. Levinson, M.D., Richmond  
David C. Lowance, M.D., Charlottesville  
Ildefonso C. Monteiro, M.D., Richmond  
Patrick David Moore, M.D., Newport News  
Charles J. Nowacek, M.D., Remington  
Orlando Abellana Pepito, M.D.,  
Fredericksburg

Magdalena J. Pogonowska, M.D.,  
Blacksburg

Daniel Comeja Prieto, Jr., M.D.,  
Silver Spring, Md.

Teofilo Aparis Puray, M.D., Front Royal  
Rodolfo Lumucso Quion, M.D.,  
Fredericksburg

Mansur Rahnema, M.D., Virginia Beach  
Henry Stewart Sabatier, Jr., M.D.,  
Bethesda, Md.

Hubert Adams Shaffer, Jr., M.D.,  
Charlottesville

Alaidin Shahabadi, M.D., South Boston  
Curtis Varnell Spear, Jr., M.D., Norfolk  
Herbert F. Sudranski, M.D., Roanoke  
Alice J. Turek, M.D., Lynchburg  
James Aloysius Walsh, M.D., Roanoke  
Richard Albert Wiklund, M.D.,  
Charlottesville

## New Officers for Local Societies.

*Fairfax County Medical Society.* Dr. William Bekenstein, Fairfax, has been installed as president of this Society. Dr. Nelson Tart, Falls Church, is president-elect; Dr. Hans J.

Klapproth, Annandale, vice-president; Dr. Thomas Fulcher, Fairfax, secretary; and Dr. A. S. Lineberger, Falls Church, treasurer.

*Fredericksburg Medical Society.* Dr. H. Lake Westfall is president, Dr. Lawrence E. Southworth, president-elect, and Dr. F. Baldwin Harrington, secretary-treasurer.

*Newport News Medical Society.* Dr. Hugh Warren is president, Dr. Thomas W. Payne, vice-president, and Dr. Thomas A. Wash, secretary-treasurer.

*Prince William County Medical Society.* New officers are: president, Dr. John Greenhalgh, Dumfries; vice-president, Dr. Robert F. Lehman, Manassas; secretary, Dr. A. T. Ventzek, Woodbridge; and treasurer, Dr. Karl Hellinger, Fairfax.

*Virginia Beach Medical Society.* Dr. Robert T. Mosby has been installed as president; Dr. R. L. Smith is the new president-elect; Dr. R. J. Wyles, secretary, and Dr. John M. Stehlick, treasurer.

## Dr. James M. Moss,

Alexandria, has been reappointed to the American Medical Association Council on Scientific Assembly.

## Dr. William P. Wagner,

Chesterfield, has been elected president of the Richmond Area Mental Health Association.

## Virginia Council on Health and Medical Care.

Dr. M. Pinson Neal, Jr., Richmond, has been re-elected for a two-year term as president of the Council. Dr. Mack I. Shanholtz has been named a vice president.

## McGuire Lecture Series.

The 44th annual McGuire Lecture Series will be held at the Medical College of Virginia, March 22-23. The subject for this year is The Clinical Laboratory in Medical Prac-



tice and the McGuire Lecturer will be Dr. George Z. Williams, Director, Institute of Health Research and Clinical Professor of Clinical Pathology of the University of California, San Francisco. The guest faculty will be Dr. Myrton F. Beeler, Associate Professor of Pathology, Louisiana State University Medical Center, New Orleans; Dr. George J. Carroll, Louise Obici Memorial Hospital, Suffolk; Dr. Rex B. Conn, Jr., Director, Department of Laboratory Medicine, Johns Hopkins Hospital; Dr. Robert D. Langdell, Professor of Pathology, University of North Carolina; Dr. Howard M. Rawnsley, Professor and Director of Pepper Laboratories, University of Pennsylvania; and Dr. Benjamin F. Trump, Professor and chairman, Department of Pathology, University of Maryland. The faculty from the Medical College of Virginia: Dr. Seymour Bakerman; Dr. Robert V. Blanke; Dr. Harry P. Dalton; Dr. John G. dos Santos; Dr. Mario R. Escobar; Dr. William J. Frable; Dr. Ali A. Hossaini; Dr. Charles L. Johnston, Jr.; Dr. Peter Mamunes; Dr. Read F. Mc-

Gehee, Jr., and Dr. Joseph H. Riddick, Jr.

Eleven and three-fourths prescribed hours by the American Academy of Family Physicians have been applied for. The continuing education program of the School of Medicine of the Medical College of Virginia is fully accredited by the American Medical Association.

### **Newly Appointed Board of Audiology and Speech Pathology.**

The Virginia Board of Examiners for Audiology and Speech Pathology provides for the licensure of persons who are practicing audiology and/or speech therapy. Certification became mandatory as of January 1, 1973. Members of the Board are Dr. Ralph C. Bralley, University of Virginia, Charlottesville; Mr. Reuben Cooper, Old Dominion University, Norfolk; Dr. Henry B. Creech, VA Hospital, Richmond; Dr. Henry C. Hecker, Riverside Hospital, Newport News; and Dr. Peter A. Wallenborn, Roanoke.

# Obituary . . . .

## **Dr. Harry Hudnall Ware, Jr.,**

Richmond, died February 6, at the age of seventy-four. He was a graduate of the Medical College of Virginia in 1924. Dr. Ware began teaching obstetrics and gynecology at the Medical College of Virginia in 1928 and taught there until 1969. He was chairman of the Department from 1942 to 1967 and professor emeritus since his retirement as chairman. Dr. Ware was the first obstetrics-gynecology specialist in Richmond and was among the first in Virginia to perform Caesarean sections during the late 1920s. In 1969, part of the labor and delivery suite at MCV was named the H. Hudnall Ware Jr. Caesarean Section Room. The H. Hudnall Ware Resident Society, whose membership includes about 100 doctors who studied under Dr. Ware, was formed at the College several years ago.

Dr. Ware was also director of the Child Development Study of the National Institute of Mental Health at the Medical College of Virginia conducting research on cerebral palsy.

Dr. Ware was a member of numerous medical societies and had served as vice-president of the American Gynecological Society and as president of the South Atlantic Association of Obstetricians and Gynecologists. He had been a member of The Medical Society of Virginia since 1929.

His wife, a daughter and three sons survive him. Two sons are Drs. Harry Hudnall Ware, III, and James Latane Ware, both practicing in Richmond.

## **Ernest Franklin Flora, M.D.**

The death of Dr. Ernest Franklin Flora on October 24, 1972, marked the end of an era in medical practice for this community. His training and education was the rule for the practitioners of medicine of his time.

Dr. Flora was born on June 27, 1883. Education in that era was quite difficult to come by. The public school system was virtually non-

existent. He secured his pre-medical education at the old Daleville College in Daleville, Virginia. The buildings of that now defunct institution may still be seen. As often occurs both high school and college courses were given at Daleville College. Dr. Flora received an equivalent of a high school education and then matriculated in the Baltimore College of Physicians and Surgeons. This medical school is no longer in existence. He received an M.D. degree from that institution in 1913 and then interned at the Mercy Hospital in Baltimore. The next eight years was spent doing general practice in Fenwick, West Virginia. In 1921 he established his practice in Roanoke and also did much work as a house officer in the Roanoke Memorial Hospital. In 1926 he became the resident physician for the Hotel Patrick Henry. He maintained this association until he retired on June 1, 1953, at the age of seventy. He then made his home with his half-sister outside of Boones Mill. For approximately five years he maintained a limited general practice in that neighborhood.

It is very difficult for us today to understand the vicissitudes of medical practice in the era in which Dr. Flora practiced. He was in practice throughout the great depression which began in this locality in 1926 and became massive in scope in 1929. The patients were unable to meet their obligations and a goodly portion of the physicians who were in the Medical Arts Building had great difficulty paying their rent. Furthermore, our limited drugs almost made the practice of medicine a contemplation of death. Fortunately, Dr. Flora had a most delightful dry sense of humor which enabled him to bear up under his burden. The classic story of his experience in the depression has been retold many times. Dr. Flora had made a house call in Southeast Roanoke and after prescribing for the patient he was ready to return to his office. The head of the household then told Dr. Flora that he would be up Saturday to his office to pay him. Dr. Flora replied that if it would be all right with the patient's husband he would rather that he would not come to his office on Saturday as he expected to have such a crowd of other people who had said they would be there to pay on Saturday that he would prefer he would come another day.

Dr. Flora was intensely interested in the Roanoke Memorial Hospital and gave much of his time for its advancement. He was active in the Journal Club of the Roanoke Memorial Hospital



*"The history of science, and in particular the history of medicine...is... the history of man's reactions to the truth, the history of the gradual revelation of truth, the history of the gradual liberation of our minds from darkness and prejudice."*

*—George Sarton, from "The History of Medicine Versus the History of Art"*

**Are there significant  
differences in bioavailability  
and clinical predictability  
among drug products?**

**Opinion**

**Results of a questionnaire to  
7,000 physicians:**

**44.6%**

**Agree there is a significant  
difference**

**24.9%**

**Believe there is no difference**

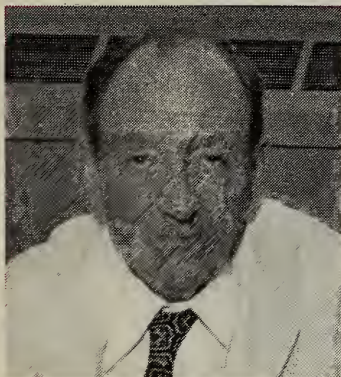
**30.5%**

**Had no opinion**

## Are there significant differences in bioavailability and clinical predictability among drug products?

### Teacher of Medicine

Alfred Gilman, Ph.D.  
Wm. S. Lasdon  
Professor & Chairman  
Department of  
Pharmacology  
Albert Einstein  
College of Medicine of  
Yeshiva University



I think that there can be a very great distinction between generic drugs and brand name drugs. And that applies to products of original research that have outlived their patent protection as well as to drugs that have long been in the public domain. Let me explain why.

#### The Importance of the Manufacturing Environment

In terms of formulation, quality control, and the ability to reproduce an essentially identical product, batch after batch, I doubt that many firms are properly equipped to put out a product that is as carefully controlled as the product marketed by a pharmaceutical company with sophisticated research and high quality manufacturing facilities. For example, when a company comes out with its own preparation of a drug that has just lost its patent protection, there is no assurance that the drug it produces will be a therapeutic equivalent. The raw material could be identical and yet bioavailability might vary from complete unavailability to that which is equivalent to the original.

#### It Isn't Enough to Meet USP and NF Standards

Meeting USP and NF standards is not enough to guarantee therapeutic equivalence. In certain instances, stricter standards must be applied. Right now, the New York Heart Association has a committee that is studying the problem of digoxin equivalent

lency. I am certain that they are going to recommend a bioavailability assay of a particular digoxin. Unless this is done, they will not recommend it for purchase or use in New York City hospitals. It represents too much of a hazard. They have gone so far as to recommend a batch-by-batch certification of bioavailability even though the company has been reproducing and marketing a digoxin product through the years.

#### The Problem of Controlling Bioavailability of Generics

The FDA does not have the manpower to inspect the quality control capabilities of hundreds of houses specializing in generic products. And I don't think that the average pharmacist is knowledgeable or aware of the quality and bioavailability of the infinite numbers of generic preparations. A recommendation has been made that every time a generic house (or for that matter a large pharmaceutical company) markets an already existing drug for the first time, a modified new drug application should be submitted. The manufacturer would have to show that his compound is the therapeutic equivalent of the standard compound in use, assuming that the standard compound is one that has been available for an extended period—say 15 years. This would be one indication that the control of bioavailability is beginning to get the attention that it deserves.

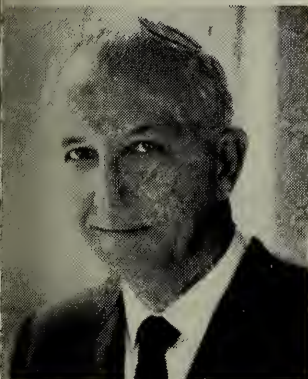
#### Clinical Predictability More Important Than Price

Although the question of price has been greatly exaggerated, it is true that patients can on occasion save money on generic drugs. But you are not going to dare attempt to save money if it jeopardizes the patient's health. Let's return to the example that has become very prominent in recent years, that of the cardiac glycosides. They are probably the most toxic drugs we use with respect to the small difference between a maximally effective dose and a toxic dose. When you are dealing with drugs of this type, the first concern must be clinical predictability. At the risk of variations in bioavailability, it would be sheer folly to try to save the patient what might amount to maybe \$10 or \$20 a year. The physician cannot manage his patient unless he is sure that the drug he is prescribing has the same positive effect each time the prescription is renewed. This is especially significant when the patient takes the product, not for months but for the rest of his life.



# Maker of Medicine

C. J. Cavallito, Ph.D.  
Executive Vice President  
Ayerst Laboratories



minimize nonequivalence of drug components produced by different manufacturers. Arguments relate largely to the extent of product inequivalences. Experience over the past six years has uncovered a greater incidence of nonequivalence of products prepared by different manufacturers from generically equivalent substances than many had previously surmised.

## Newer Bioavailability Studies Reveal Differences

Bioavailability may be defined as a measure of the rate and amount of absorption of a drug substance from its administered dosage form. For several years pharmaceutical scientists have proposed that bioavailability data on presumably equivalent dosage forms provide the best measure of product equivalence—short of adequate clinical trial. In their continued search for shortcuts to the evaluation of product equivalence, medical and pharmaceutical scientists have increasingly relied upon bioavailability characteristics as reflected by blood levels of a drug after its administration to human subjects.

Leading manufacturers now conduct comparative bioavailability studies on their own product dosage forms after production process changes that would have been considered inconsequential a few years ago. This isn't surprising, since there are so many possible differences in production operations that the opportunities for inequiva-

lent generic and brand name products are numerous—even when the production process begins with identical chemical substances. Moreover, reputable manufacturers are striving to improve *in vitro* control measures, such as dissolution characteristics, which are being related more meaningfully to bioavailability reference data.

As a result of advances in scientific instrumentation and analytical methodology which permit measurements of small quantities of drug substances in the body, our abilities to detect differences in bioavailability and possible therapeutic nonequivalence have appreciably improved.

## Product Selection

### Based on Patient Response

Improved specifications and standards can better assure the equivalence of *drug substances*. Manufacturers, compendia and regulatory agencies can all play a part. However, it is the *drug product*, not the *drug substance*, that the physician, pharmacist, nurse and patient-customer utilize. How can these indi-

viduals make or influence specific product selections to minimize variations in therapeutic equivalence of multisource drugs? Patients' responses to a drug product provide a basis of experience to aid the physician in his selection of a particular product. The nurse and pharmacist can also help detect patient responses, but ultimate responsibility must remain with the physician.

## Reputation of Manufacturer as Basis for Product Selection

The physician, to assure that his patients receive quality health care, must rely upon the capabilities of the reputable pharmaceutical manufacturer who is equipped to develop, prepare and control a quality product of uniform, reliable therapeutic performance. Substitution with purportedly equivalent generic products that are only superficially evaluated by an imitator manufacturer can place the health of the patient secondary to factors of price or convenience for the provider.

# Opinion & Dialogue

What is your opinion, doctor?  
We would welcome your comments.



The Pharmaceutical Manufacturers Association  
1155 Fifteenth Street, N.W., Washington, D.C. 20005

Although equivalence of different preparations of a *drug substance* may be defined by certain physical, chemical or biological characteristics, identity is not always assured even though these characteristics may be described in compendia such as the USP, NF or defined by other specific source standards. Moreover, even with equivalent *drug substances*, similar *pharmaceutical products* can be produced by different manufacturers such that these products are biologically or therapeutically equivalent.

## A Growing Awareness of Potential for Nonequivalence

As experience increases with *drug substances* derived from different sources and under different conditions, it should be possible to establish specifications in sufficient detail to minimize the potential for nonequivalence. However, there is general agreement that product therapeutic equivalence would still not be assured even if one could





## MINOCIN® made the difference in just eight days.\*

### Clinical Data:

**Patient:** 47-year-old male.

**Diagnosis:** Severe pyoderma, left hand.

**Culture:** *Staphylococcus aureus*, coagulase positive and sensitive to MINOCIN.

**Temperature:** 102° F

**Therapy:** MINOCIN Minocycline HCl Capsules, 100 mg: 200 mg *stat*, 100 mg every 12 hours. Medication began 9/7/71. By fourth day, temperature was normal and pustular lesions considerably improved. Last dose taken 9/14/71.

**Concomitant therapy:** None.†



Semisynthetic

**MINOCIN®**  
**MINOCYCLINE HCl**

Capsules, 100 mg: 2 *stat*, 1 q 12 h.

**Indications:** For the treatment of susceptible infections; e.g., *E. coli*, *D. pneumoniae*. For full list of approved indications consult labeling.

**Contraindications:** Hypersensitivity to any tetracycline.

**Warnings:** The use of tetracyclines during tooth development (last half of pregnancy, infancy and childhood to the age of 8 years) may cause permanent discoloration of the teeth (yellow-gray-brown). This is more common during long-term use but has been observed following repeated short-term courses. Enamel hypoplasia has also been reported. Tetracyclines, therefore, should not be used in this age group unless other drugs are not likely to be effective or are contraindicated. In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, use lower total doses, and, in prolonged therapy, determine serum levels. Photosensitivity manifested by an exaggerated sunburn reaction has also been observed in some individuals taking tetracyclines. Advise patients apt to be exposed to direct sunlight or ultraviolet light that such reaction can occur, and discontinue treatment at first evidence of skin erythema. Studies to date indicate that photosensitivity does not occur with MINOCIN Minocycline HCl. In patients with significantly impaired renal function, the antianabolic action of tetracycline may cause an increase in BUN, leading to azotemia, hyperphosphatemia, and acidosis. CNS side effects (lightheadedness, dizziness, vertigo) have been reported, may disappear during therapy, and always disappear rapidly when drug is discontinued. Caution patients who experience these symptoms about driving vehicles or using hazardous machinery while taking this drug. **Pregnancy:** In animal studies, tetracyclines cross the placenta, are found in fetal tissues, and can have toxic effects on the developing fetus (often related to retardation of skeletal development). Embryotoxicity has been noted in animals treated early in pregnancy. Safety of use during human pregnancy has not been established. **Newborns, infants and children:** All tetracyclines form a stable calcium complex in any bone-forming tissue. Prematures, given oral doses of 25 mg./kg. every 6 hours, demonstrated a decrease

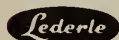
in fibula growth rate, reversible when drug was discontinued. Tetracyclines are present in the milk of lactating women who are taking a drug of this class.

**Precautions:** Use may result in overgrowth of nonsusceptible organisms, including fungi. If superinfection occurs, institute appropriate therapy. In venereal diseases when coexistent syphilis is suspected, darkfield examination should be done before treatment is started and blood serology repeated monthly for at least four months. Because tetracyclines have been shown to depress plasma prothrombin activity, patients on anticoagulant therapy may require downward adjustment of such dosage. Test for organ system dysfunction (e.g., renal, hepatic and hemopoietic) in long-term use. Treat all Group A beta hemolytic streptococcal infections for at least 10 days. Avoid giving tetracycline in conjunction with penicillin.

**Adverse Reaction:** GI: (with both oral and parenteral use): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in anogenital region. **Skin:** maculopapular and erythematous rashes. Exfoliative dermatitis (uncommon). Photosensitivity is discussed above ("Warnings"). **Renal toxicity:** rise in BUN, dose-related (see "Warnings"). **Hypersensitivity reactions:** urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus. In young infants, bulging fontanels have been reported following full therapeutic dosage, disappearing rapidly when drug was discontinued. **Blood:** hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia. **CNS:** (see "Warnings.") When given in high doses, tetracyclines may produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

**NOTE: Concomitant therapy:** Antacids containing aluminum, calcium, or magnesium impair absorption; do not give to patients taking oral minocycline. Studies to date indicate that absorption of MINOCIN is not notably influenced by foods and dairy products.

\*Indicated in infections due to susceptible organisms. Culture and sensitivity testing recommended. Tetracyclines are not the drugs of choice in the treatment of any staphylococcal infection. †Case Report, Clinical Investigation Department, Lederle Laboratories.



LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York 10965 12-20 436-2



which met weekly for a resume of the current literature. Dr. Flora was not long on the formal education for the practice of medicine. He more than compensated for this by his energy and also for his great interest in keeping abreast of medical literature. Today we have lost sight of these hardy souls who pioneered the way in medicine. It would indeed be fortunate if the doctors of today could command even in a small measure the respect, love, and confidence of the patients which the doctors of Dr. Flora's generation enjoyed.

Mr. President, I move that the Roanoke Academy of Medicine express their condolences to his sister and that a copy be placed upon the minutes of the Academy and also that a copy be forwarded to the Virginia Medical Monthly.

HENRY LEE, M.D.

### **Dr. James Erwin Diehl,**

Formerly of Norfolk, died December 27. He was eighty-seven years of age and received his medical degree from the University of Maryland in 1911. Dr. Diehl had been a member of The Medical Society of Virginia for fifty-two years.

### **Dr. Thomas Blackburn Payne,**

Fredericksburg, died January 31. He was killed in a car-truck accident. Dr. Payne was sixty-four years of age and received his medical degree from the Medical College of Virginia in 1931. He was associated with the Pratt Clinic in Fredericksburg. During World War II, Dr. Payne served with the University of Virginia Hospital unit in North Africa, Italy and Germany. The city of Augsburg, Germany, was surrendered to him when he arrived with the first Allied units. Dr. Payne had been a member of The Medical Society of Virginia since 1934.

His wife and two daughters survive him.

### **Dr. Frederick Matthews Jacobs**

Died October 6, 1971, after a lingering and painful illness which he bore with great dignity, patience, and good humor. He was a native of Roanoke, where he attended public schools, Roanoke College and, in 1933, got his M.D. Degree from the University of Virginia. He was a mem-

ber of Alpha Omega Alpha and Alpha Kappa Kappa. He served his internship in surgery, assistant residency and residency in urology, all at Long Island College Hospital, and residency in surgery at Coney Island Hospital, after which he spent one year of research in neurosurgery with Dr. Jefferson Browder at the Coney Island Hospital. Following this, he practiced urology in Houston, Texas, and Roanoke. He entered the United States Army in 1940.

During World War II he commanded station hospitals in the Netherlands, East Indies and the 131st General Hospital in the Philippines, attaining the rank of Lt. Colonel and receiving the Bronze Star. After World War II he served as Chief of Urology at the Veterans Administration Medical Teaching Group, Memphis, Tennessee.

He returned to active duty during the Korean War. From 1953 to 1955 he practiced in Memphis. In 1955 he returned to Roanoke where he practiced urology until his illness incapacitated him.

Dr. Jacobs was a Diplomate of the American Board of Urology and Fellow of the American College of Surgeons, the International College of Surgeons, Member of the American Medical Association, Southern Medical Association, Middle Atlantic Section American Urological Association, American Urological Association, The Medical Society of Virginia, the South West Medical Society and the Roanoke Academy of Medicine. He was the author of 13 papers on various aspects of urologic surgery.

He was past Virginia Commander and past Roanoke Commander of the Military Order of the World Wars and a member of the Kiwanis Club of Roanoke Valley.

Dr. Jacobs had many hobbies, one of which was theoretical math. He took night classes in this at the Massachusetts Institute of Technology while stationed at Murphy General Hospital.

He was an avid vegetable gardener; worked in the Police Athletic League with underprivileged boys; and was intensely interested in ecology and the preservation of wildlife. Athletics, intercollegiate and professional, absorbed his attention. He was a lover of music: opera, symphonic, classical and modern. His knowledge of classical literature was enormous. He was a devoutly religious Roman Catholic.

Despite his many and varied interests his main concern was always the safety and welfare of his patient . . . he seldom left town for more than a short weekend because of this burning desire to serve his patients.

Dr. Jacobs was a brilliant diagnostician and operator. He maintained a tremendous surgical

schedule. His kindness, concern, dedication, modesty, and cheerful attitude were a constant inspiration to his patients and colleagues who dearly loved him.

He is survived by his wife, his mother, one sister and five brothers.

NOW, THEREFORE BE IT RESOLVED that this memorial testimony of deep regret at the loss of our much-loved and highly-esteemed colleague be written in the minutes of the Roanoke Academy of Medicine, The Medical Society of Virginia and that a copy be sent to his family.

CHARLES A. YOUNG, JR., M.D.  
ALEXANDER McCausland, M.D.  
RICHARD H. LOWE, JR., M.D.

### **Dr. Russell Samuel Leone,**

Arlington, died December 31 of a heart attack. He was sixty-seven years of age and graduated from the University of Buffalo Medical School in 1929. Dr. Leone served with the U. S. Army and Air Force for thirty-one years, retiring in 1960 with the rank of Colonel. Following his retirement he became associated with the Fairfax Hospital as director of its emergency service, retiring from that position in 1971. Dr. Leone was a member of the Air Force Physical Disability Appeal Board from 1950 to 1955, then served as chief of the physical standards division in the office of the Air Force Surgeon General until his retirement. He had been a member of The Medical Society of Virginia since 1962.

His wife, a son and a daughter survive him.

### **Dr. Robert Long Gleason,**

Died in Roanoke on the eleventh of November, 1972, as a result of a ruptured cerebral aneurysm, which occurred suddenly one week earlier. He was just sixty years old.

Bob came to Roanoke in November, 1967, as a specialist in the field of anesthesiology and he served on the Medical Staffs of all the local hospitals. Dr. Gleason was a member in good stand-

ing of the Roanoke Academy of Medicine, The Medical Society of Virginia, the American Medical Association, the Virginia Society of Anesthesiology and the American Society of Anesthesiology. He had been board certified in specialty since 1946.

Dr. Gleason, a native of Pennsylvania, was born in Scranton, on July 25, 1912. His medical career of some thirty-four years saw him serve in many places distant from the state of his birth. He attended Louisiana State University and graduated from Tulane University School of Medicine in 1938. He served his internship at Toronto Western Hospital, Toronto, Canada, the following year. His residency in anesthesiology was undertaken at Bellevue Hospital in New York, continued at Deaconess Hospital in Detroit and was completed at Polyclinic and Lincoln Hospitals in New York City in 1941.

He served in the United States Medical Corps from 1941 to 1946. Dr. Gleason was the first American Anesthesiologist in the European Theater during World War II. He served as Chief of Service in four different army hospitals while overseas.

Following the war, Dr. Gleason took an appointment with the Veterans Hospital in New Orleans and was responsible for establishing a teaching program in anesthesiology in that hospital. After a brief tour as Chief of Service of the Veterans Hospital in Oklahoma City, Dr. Gleason entered the private practice of anesthesiology in Amarillo, Texas, and remained there seven years. Then in 1956, he moved his practice to Genesee Hospital in Rochester, New York, and later to Clifton Springs Hospital in the same State. Dr. Gleason moved to Virginia in 1965 and after two years in Newport News, he came to Roanoke.

Dr. Margaret Gleason, a son, a daughter, two sisters, and a brother survive Dr. Robert Gleason.

His personality was unique. His humor dry and candid. He did not stint in giving of his talents or his time to help his fellowman. Bob was a man of high principle. He is sorely missed by those among us who shared life with him day by day.

JOSEPH E. ANDERSON, M.D.  
GEORGE H. CUDWORTH, M.D.  
RICHARD H. LOWE, JR., M.D.



### Guest Editorial . . . .

#### Priorities, Past and Present

**F**OR A LONG TIME, I have wanted to put my thoughts on paper, but there always were more pressing problems which played havoc with such an undertaking.

Formerly, the doctor was first and foremost a humanist. Reading the medical work of that time, we cannot fail to notice that, although scientific facts may not have been accurate, the image came across that those men were well-versed not only in medicine, but in philosophy, theology, art, literature, etc. Most of all, one was aware of their compassion. Nowadays, with rare exception—Doctors Mark Ibañez, William Osler, Irvine H. Page, G. Marañón—the humanistic aspect has disappeared. When you are in a gathering of doctors, you realize that they are quite competent in their profession, they excel in scientific knowledge, they are up-to-date with the most minimal details of what is happening in their fields of endeavor, but if you try to bring the conversation around to some other topic, it is immediately and painfully apparent that those men lack the well-rounded knowledge to keep a conversation interesting.

Ortega Y Gasset, the Spanish philosopher, said “the man is the result of himself and his circumstance,” and I ask, what is happening to our circumstance? Where did we go wrong? Have we tried to emphasize, early in our system of education, the scientific part of it to the detriment of the humanities? Have we forgotten that you can be an excellent technician, that you can have all the scientific knowhow, and still be a very poor doctor? I, personally, believe so, and perhaps it is past time that we take a good look at ourselves and try to reassess our sense of values and priorities.

All of us have endured innumerable informative talks, full of facts, but with little human flavor. The art of talking, and talking is an art, is getting lost. Have you noticed the so-called New Generation talking mostly in monosyllables? We are moving so fast that there is not time any more to sit

around a table with friends, drinking a cup of coffee and talking. Nowadays, everything moves fast. You go to cocktails, where everybody stands, when the noise is so great that you can barely hear your neighbor, where everybody moves in and out of the different groups without attempting to establish a good conversation, just talking banalities. No more sitting around the table, after dinner, to convene and discuss the family events and adventures; everybody is in a hurry to rush in front of the television set to watch the latest programs.

Do not get me wrong; I enjoy all the comforts that modern civilization has given us, but could we not have also some time to educate ourselves and our children on those things that ultimately make for a full life? Sometimes I wonder if the lack of communication—the generation gap—is not due to the fact that we have overemphasized the materialistic approach toward life, disregarding the humanitarian side.

ANTHONY J. MUÑOZ, M.D.

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*South Main Street  
Farmville, Virginia 23901*



# Medicine Knows No Boundaries

CHARLES A. HOFFMAN, M.D.  
Huntington, West Virginia

**T**HERE ARE TWO REASONS why I am especially happy to be with you tonight.

First, it is always a pleasure to be with colleagues. And secondly, I feel more at home in a Southern state.

I *can* claim to be a Southerner you see. I can do this because West Virginia is the most eastern of the western states, the most western of the eastern states, the most northern of the southern states, and last, but not least, the most southern of the northern states.

Virginia, of course, is just about as Southern as a state can get. And I am glad of that because before I finish my address, I may need some of your most famous natural resource, Southern hospitality. I will have to rely on that hospitality because not everyone here is going to agree with what I say. If I *did* please everyone in this audience, it would probably be a pretty poor talk, a useless exercise in Apple Pie and Motherhood. And even if less than half of you agree with me, I hope to at least give each of you some new ideas, some new perspectives, to think about.

I would like to discuss two major health care problems, the shortage and maldistribution of physicians, and how to provide minimum levels of care, including protection against catastrophic illness, to a maximum number of people at reasonable cost.

I am going to try and give you a different look at these problems by sharing with you some new concepts that I brought back from my recent trip to Europe. As many of you know, I returned early last month from a five-week trip to study health care systems in England, Sweden, West Germany and the Soviet Union. Let me hasten to add that five weeks

is not enough to make me an expert on *any* health care system, much less four of them. Since I am not running for any political office, I will *not* glorify my trip by calling it a "fact-finding" mission.

And, unlike some prominent Americans frequently in the news, I do *not* believe it is possible to compare health care systems on a country-to-country basis.

In addition to obvious differences in geography and population makeup, there are usually significant differences in social and political philosophies which make simple comparisons impossible.

Still, by keeping an open mind and not falling into the trap of looking only for what is *wrong* with another country's system to prove what is *right* with ours, and by talking to people from all walks of life, you can gain some extremely valuable new insights.

Some of the things I learned will surprise a lot of Americans, including physicians. Contrary to what I had been led to believe, for instance, most of the people I talked to were pretty well satisfied with the health care they received. And that included people in Sweden and England where socialization of health care is virtually total.

I was also struck by the similarity of health care problems, no matter what country you are in. For instance, what about the problems I mentioned earlier. The shortage and maldistribution of physicians is a common problem, although I personally believe that maldistribution is the biggest part of the problem by far. Still, specialization has produced a shortage of family physicians in every country I visited. But the rural health care problem caused by maldistribution is even more striking.

Sweden, for instance, built a network of modern, well-equipped, medical clinics

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HOFFMAN, CHARLES A., M.D., *President, American Medical Association.*

Presented to the Richmond Academy of Medicine, September 12, 1972.

throughout the country. But I saw clinics meant to house five or more physicians staffed by only one or two. And Sweden is roughly the size of California with a population equivalent to the New York City metropolitan area. This proves that solving rural health care problems is not easy no matter what the system.

England too has problems providing care to outlying areas. It is interesting to note that they are experimenting with *our* group practice models as one possible method of coping with the problem.

Even Russia has a problem trying to care for patients outside metropolitan areas. It is true that they have a vast land area, much larger than our own, but then the government has unlimited powers to plan and implement solutions. And I *do* mean unlimited. One Russian health official outlined the government's medical philosophy. Asked what would happen if there were too many obstetricians in Russia, he told me, "We would simply stop producing obstetricians."

To try and ease the rural health problem, the Soviets dictate the area where each new physician will practice for the first three years. But very few of these physicians stay put after the three years are over.

So the Russians are attempting to solve the problem with suspiciously capitalistic temptations such as higher salaries, new medical facilities and equipment, finding jobs for spouses, and offering post-graduate medical education opportunities.

As for making minimum levels of care available to more citizens and providing protection against the high cost of catastrophic illness, the nationalized systems in Europe generally do a better job than we do.

Ease of access to the health care system, complete coverage for both out-patient and in-patient care, freedom from worry over the costs of catastrophic illness, all of these are characteristic of the European systems. For these reasons, most people in the countries I visited are not about to seek wholesale changes in their systems. And conversely, the chief

European criticism of our own system is that it lacks these qualities.

The question is *how* do the Europeans do it? There is one way, and *only* one way, to provide everyone with a minimum level of complete health care coverage.

This broad financial support is needed because modern health care, as you people well know, *is* expensive. But the politician's glib promise that government control of both financing and administration of health care will provide more and better quality care at less cost is a fairy tale.

Present government appropriations have a nasty habit of failing to live up to past promises. To prove it, I will draw some parallels between the British and West German health care systems.

In England the government exercises complete control over financing and administration of the health care system. Patients have no choice of physicians in hospitals and physicians are employed by the government.

Private control of the English health care program is small and costs are paid mainly through taxes levied by the government.

In West Germany, patients and physicians, acting through their own legally established organizations, mutually determine levels of care and fees to pay for that care. Both patient and physician also retain traditional freedoms.

The government acts largely as a referee helping to set minimum levels of care and maximum cost levels. But considerable room is left for negotiations at the private level.

Funding for the West German system comes from mandatory deductions from the paychecks of most workers. This deduction is currently about 5.5 percent and is matched by employers. It follows that those earning lower salaries pay correspondingly less.

Now what about the respective performances of these two systems? Which works best, a system with minimum or maximum government control?

A statement on the English system made last month in U.S. News and World Report supports misgivings that we ourselves have



often expressed. "Think twice before adopting a medical system that is operated almost exclusively by the central government and is financed almost entirely out of general tax revenues."

While patients and physicians are satisfied with the major advantages of the system, guaranteed care for every citizen in the event of serious illness and protection against catastrophic costs, the system does have major drawbacks.

Since health care has to compete for financing with other government programs, the health care system is plagued by a chronic shortage of funds due to inadequate appropriations. This, of course, directly affects quality of care provided.

Poor opportunities for professional career advancement and substandard pay scales have caused a substantial number of physicians to leave England for other countries. Foreign physicians account for 50 percent of the medical staffs in British hospitals, for instance.

Family physicians, who receive only a small annual capitation fee for each patient in their practice, say the system tends to encourage referral of any serious cases to the hospital and erodes the incentive to provide the best possible care to each patient.

Patients requiring elective care face months—and sometimes years—of waiting in England. The delay for a tonsillectomy may be up to four months and the wait for treatment of hernia or varicose veins may be two years.

Those are some of the drawbacks of the English system. Now what about West Germany? As you might expect, both patients and physicians are generally satisfied with the complete coverage provided. But as a rule West German patients and physicians are even more satisfied with the system as a whole since they maintain much of their freedom of choice.

More funds are available to maintain the quality of care provided in the system since this is determined by actual need rather than government fiscal priorities. And most patients do not have to wait as long for elective

care in West Germany as they would have to in England.

But the West German system too has its problems.

The office-based or private, physician cannot treat a patient in the hospital. This interrupts the continuum of care, tends to encourage needless duplication of tests, and deprives office-based physicians of learning new medical techniques practiced in teaching hospitals. And hospital-based physicians, with the exception of heads of departments, are more limited than office-based physicians in terms of financial opportunities. Since they might wait years for a departmental appointment, there is a constant turnover in hospital staffing.

The system also does not provide adequate financing for hospitals, mainly because of a hangover from a post World War Two price freeze. To recover costs, hospitals keep patients well into the recuperative period, *after* expensive tests and procedures have been completed. The average length of stay for a West German patient is 19 days, more than twice as much as the nine-day average in the United States.

But in spite of its flaws, the West Germans believe they have one of the most effective systems anywhere. Founded in the 1880's, it has survived the two great world wars and four complete changes of government, including a monarchy and a dictatorship, as well.

But what can we learn from the European systems? What general conclusions can we draw that can help us solve our own problems?

I would like to briefly re-examine our rural health care problems. We are all familiar with various efforts which have been made to try and solve this problem.

Your own efforts in this regard reflect the situation elsewhere. I note that Dr. Warren Pearse, dean at the Medical College of Virginia, in a recent Times-Dispatch interview, summed up what is being done in Virginia.

You can look forward to more family practitioners, the number of specialists settling in your outlying medical centers is increasing, and you have a positive balance of house of-

ficers with more interns and residents coming into your State than graduate here.

Some of our other proposals to ease the rural health care problems have not been successful, however. Most of you will agree that the system of making loans to medical students who agree to serve in deprived areas after training has been a comparative flop.

But what if we adopted a slight variation of the Russian system? What if we took a number of less affluent but fully qualified students and had the government finance their medical educations from start to finish?

In return they would sign an ironclad contract to practice their first two or three years in specified areas of priority need *with penalties for breach of contract clearly spelled out*.

I believe that such a contract would stand a good chance of being honored. I also believe that two years of community medicine prior to residency would teach some invaluable lessons to the new physician, including the fact that non-urban practice also offers rewards to the physician.

And if a government loan program would not work, perhaps we should consider the establishment of a selective public service system, a sort of "domestic draft".

What would be wrong with asking every young American, including physicians, to devote two years of public service to his country? The period could be served after high school, after college, or in the case of physicians, after internship.

Our young people say they want something much more intangible than material rewards or social status. They want to benefit society in meaningful ways, to improve the quality of life. These are admirable goals. Why not give the younger generation a chance to fulfill them?

But meanwhile, what about *our* responsibilities, what about *our* goals? How are we going to help resolve the two biggest problems facing our health care system? First, the need to provide a minimum level of quality care for every American and secondly a solid floor of financial support through which costs can be effectively amortized.

Both of these problems *are* going to be solved and within a very few years. The only question which remains is whether it will be through complete government control and financing, or whether these responsibilities will rest largely with the private sector.

As you well know the answer to that question will determine the future of our profession.

That future now lies in Congress, where various proposals to solve our health care problems, proposals such as our own Medcredit, are currently being considered.

Whether those scales are tipped toward Medcredit or toward wholesale government control of health care such as that found in England will depend mainly on our own influence. And that influence can be effectively asserted only by a united profession. Our fate lies in how much strength and support each of us lends to our federation of county and state medical societies and the AMA.

I could go into a long list of benefits to our profession made possible by this federation, professional standards of education and training that are envied worldwide, and many other benefits as well.

I could also tell you about some direct benefits that each of you enjoy through federation membership, benefits such as free access to scientific materials and group rates for life and health insurance.

But the truth is that your dues will not buy an equal return in goods and services. Your money and your time bring you much more than that. They provide you with the opportunity to participate at the local, state and national levels in the never-ending crusade to maintain and improve the standards of our profession, so that in the end the patient benefits.

There is no room in this crusade for the physician who buries himself in his practice and says: "*This* is medicine."

In more ways than one—good medicine knows no boundaries.

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Box 2507

Huntington, West Virginia 25725



# Accelerated Medical Education

## Some Popular Attitudes

WILLIAM H. YOUNG

Lynchburg, Virginia

**For most of the general public, the practicing doctor ranks highest in any professional hierarchy. Much of this status comes from his extensive education. Any revision of that educational system should therefore be understood by the public so as to ensure its continued support. Any educational revisions should strive to bring more new physicians into primary care, since it is here that the current shortage of doctors is most noticeable.**

**T**HROUGH THE PAGES of *Time*, *Newsweek*, and similar magazines, in newspaper articles, and from television documentaries, the American public has been made vaguely aware of some of the nationwide health-care problems facing America. The Senate talks on national health insurance, the rhetoric of the current Presidential contenders, or maybe just receiving a hospital bill—at least on a very popular and surface level—things begin to take on a form: everything is not well with American medicine.

One hears that the United States is facing

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YOUNG, WILLIAM H., *Chairman, American Studies Program, Lynchburg College.*

Presented at annual meeting of Southern Association of Medical College, San Antonio, April 1972.

a severe shortage of doctors. Among industrialized Western nations, America is not educating its share of new doctors to handle its rising population. Further, one hears that, if anything, the doctor shortage will get progressively greater. A specific example will illustrate this fact: in several American cities the need for doctors is so great that when newcomers move to these cities they cannot get a family physician. Instead they take their chances from a pool of doctors. For a continuing illness, one might well see two or three doctors during its course. Fortunately, that problem tends to get alleviated as quickly as possible, but many smaller towns still face it, and certainly the memory of a doctor shortage rankles for many.

Another common complaint involves how impersonal the medical "system" has become. One can no longer talk, no longer be reassured, with his doctor. Instead, it is all rush, rush, rush. The physician sees the patient for a few brief moments (after that patient has idled away hours in a waiting room) and then refers him to someone on the other side of town. Thus people complain that they have become mere numbers, shuffled from office to office. True or untrue, that is the feeling.

Finally, the skyrocketing costs of first-rate (and even second-rate) medical care usually get focused on the doctor, at least in the public's eye. Few persons stop to think that nurses, medicines, the new mechanical devices used in medicine, the entire hospital or clinical staff, even receptionists, cost more today. Instead, the public sees the doctor getting rich, cruising about in his Cadillac—and at the helpless sick person's expense. This may be a case

of mass tunnel vision, but that is how much of the lay public sees it.

And so, at cocktail parties, coffeebreaks, over lunch, people begin to talk of expanding medical schools, training paramedics, importing doctors, and such. Very few non-medical people talk, as yet, of accelerated curriculum programs, but that is coming too. But, be it in *Time*, the *New York Times*, T.V., or on the campaign trail, what is being talked about is expanded health care. And, ultimately, health care means physicians.

There seem to exist several basic ideas about ways to enlarge health care and to employ the individual physician more effectively. First, increase the doctor's own efficiency by any means possible: more patients per hour, longer office hours, increased use of medical aides of one type or another, and so on. Second, increase the number of doctors, either by graduating more, or by retaining more in active practice. Third, and this last, it would appear, deals most directly with the subject of the accelerated curriculum—although somewhat inaccurately—increase the number of years of productive service from each doctor. This last is accomplished by graduating him earlier and then keeping him active longer.

The first two—working the doctor harder, or simply multiplying him in some way—would seem to have all kinds of drawbacks. But the third—bringing the doctor into active practice sooner—would seem to hold a great deal of promise. However, since it now costs somewhere between \$18,000 to \$25,000 per year to educate a physician, the medical school and its supporting public want and deserve their money's worth. So any changes in the actual curriculum need justification. To say, simply, for "economy" or even for "educational experimentation" obviously is not enough. The public demands more specifics.

Therefore, the most obvious question that comes to mind when discussing any accelerated program is: What is the program trying to do? Is it, first, trying to turn out more doctors and at a faster rate and is it necessarily turning out a better doctor if he moves along

faster? Is the program attracting better students (and therefore better future doctors) through its accelerated features? And, specifically, what *kind* of doctors will accelerated programs encourage? What kinds of medicine, what specialties, will they enter?

With the exception of this last question—what kind of doctor?—these questions of course come ready-equipped with glib "yes" answers to each. Yes, the program will turn out more doctors; yes, the program will turn out better doctors; yes, the program will attract better students. But most persons realize that neither "yes" nor an equally glib "no" will suffice as answers.

Another factor that needs consideration when discussing medical education is the total medical school itself. How much are its policies dictated from within and how much from without? Perhaps that stands as an unanswerable question. But medical educators should think about what the American public wants—or think it wants—the profession to produce. And should the public necessarily have a voice in medical education? Such questions must ultimately be considered by physicians, educators, administrators, and students. How does each group see its role in an era of changing curricula? Is each an agent of some of this change, or does each simply move with these changes as they come along? Since no one has attempted any truly systematic analysis of medical education in the United States, these questions continue to go begging. Perhaps a clear definition of roles would allow medical education to be more receptive to change.

Because of this lack of any clear definition of roles, the American public persists in viewing American medicine through somewhat distorted lenses. For the average American, the doctor—be he general practitioner, surgeon, gynecologist, cardiologist, or whatever—occupies the most prestigious of all professions. For example, the doctor's nurse, no matter how highly trained or qualified, occupies a much lower rung on the social hierarchy. When one goes into his doctor's office, that



is who he wants to see: the doctor. Not his receptionist, not his nurse, not even, perhaps, his associates if he works with other doctors. Americans are rather single-minded about this: no one else will do. All things considered, it is rather amazing what patients will do to make sure that *the* doctor is in. They will pretend to be lost, to be sicker than they are, to be looking for a friend, etc. And yet these same persons tend to go to the physician with a sense of awe—this learned person with all those diplomas displayed on the office walls. For many Americans, a doctor could probably still wear a long robe decorated with astrological symbols, and maybe even wear a tall, pointed hat. Even today, for the lay person, much of what doctors say in their diagnoses sounds like mumbo-jumbo, but they still come to them humbly. And the medical profession, from medical school to hospitals, from the AMA to the individual doctor, tends to encourage this idea of the doctor as a man apart, the superior man.

And yet, with all the *earned* prestige (and certainly it is earned), medical educators are encouraging cutting down on the time spent on medical training. What will be the public's reaction to such a move? Much of the profession's prestige comes from the long schooling. True, the doctor's a healer, but his skills are learned, not God-given. And the public does know this. Although the public would surely welcome additional physicians, it does not want seemingly mass-produced ones.

In fact, the time spent in getting the M.D. justifies to the public the great amount of money needed to produce this doctor. If the medical student could go through in a year or so less, would the public still be so willing to spend so much on medical education? In America, particularly as it comes into the age of the consumer, people are being reminded constantly that they should strive to get their money's worth. If the package is not full, complain. And if the curriculum gets streamlined—is the country getting its full doctor's worth?

So it seems that one problem that accelerated

curriculum programs—or any curricular innovation for that matter—will face is public disapproval. This disapproval might take the form of recalcitrant legislatures and the like. But whatever its form, the profession will have to make very clear what it is proposing doing.

In fact, perhaps a semantic problem exists in the term, “accelerated curriculum”. Accelerate means “go faster”—therefore, that means the medical student will simply push through his work faster, correct? But if he goes through faster, he must be cutting a lot of corners. A “faster curriculum” just has to be a diluted curriculum. In education, whenever any group attempts to alter a curriculum the problem of how to articulate the changes always arises. As an example, when an attempt was made to initiate American Studies at Lynchburg College, the first proposal called for an “American Studies Department”. Immediately, many people felt threatened. A department would have to draw its majors from somewhere; presumably it would drain the other departments. And so the proposal was defeated. Round Two: why not an American Studies Program? With hardly a word of dissent, the proposal breezed through. A *program* could not possibly threaten a *department*. Academically speaking, the same courses and requirements were proposed, just as before—with the change of only one word. And so it is with the “accelerated curriculum”. Medical educators should make it crystal clear that they are *not* watering down the curriculum. As most persons who have experienced it know, all forms of innovation in higher education meet initial opposition. The old saying, “but it's always been done this way”, is a tough nut to crack.

But what if the accelerated curriculum idea became widespread and publicly acceptable? That would mean, then—would it not?—that the doctor shortage and related health-care problems would slowly come to an end. A look at some figures, however, disputes this conclusion. Roughly speaking, graduating medical students go in one of three directions: about 50 percent go into active practice; about

25 percent go into research, be it university, governmental, pharmaceutical, or whatever; and about 25 percent go into administration, usually hospital, university, or government.

So another problem that goes beyond merely accelerating the curriculum is getting the newly-graduated doctor to practice what he has learned. For instance, if the bulk of an accelerated graduating medical class goes into research, teaching, administration, or government, has this class justified its acceleration? Now granted, this kind of class has a certain prestige—they are specialists, they have bypassed the “more common” area of general practice—but the public, faced with a shortage of adequate health care, might well disagree.

And it is here that one gets into the area of American popular culture, specifically popular images of the doctor. These images may not jibe with reality—they seldom do—but for many, an image is more real than the facts. An idea of that image might be the classic *Saturday Evening Post* covers by Norman Rockwell (and not just Rockwell; literally hundreds of illustrators have worked the same ground). Everyone knows the picture well: the kindly old G.P. sitting at the child's bedside; worried parents in the background. He is kindly giving out sage advice, laying on of hands, and, miraculously, curing. And this image, unreal the first time it appeared, lives on. One need only watch “Marcus Welby” some night on television.

Despite the unreality of it all, the public asks—perhaps in its own way rightfully so—what ever became of that kindly old G.P. who used to sit at my bedside whenever I was ill? And it is here, in this mixed world of remembered fantasy (he was not there every time a person got sick) and nostalgia, that the various new curriculum programs run a risk. If a student goes through too quickly, does he have *time* (at least most students) to reflect? Can he put together all the bits and pieces—can he attain any wisdom about the nature of his profession?

On the other hand, the alternate choices these programs present have certain advan-

tages. General Practice, or perhaps one should say primary care, should hold great appeal to the graduating medical student, especially with the business-oriented background and culture of the United States. Yet, apparently, it does not. In effect, the new doctor becomes his own boss, running, as it were, his own shop. Yet the traditional curriculum, with its great stress on specialization, deters the student. The more specialized he becomes, the less attractive becomes primary care. He has become a technician with skills that limit his potential clientele. He has become a carpenter who can build only a certain style of house. And just as a specialist carpenter will go with a large contractor, the medical specialist may well disappear behind the walls of a large university or laboratory.

That need not be the case, however. Almost every program of acceleration or other curriculum innovation stresses early student involvement with real, everyday patients. Not just the rarer cases that the big medical-school-related hospitals see, but patients suffering from common ailments. This has been accomplished by taking—in most cases—first and second-year students into the smaller hospitals and clinics that usually are reasonably close to the medical school. And the exposure is invaluable. If nothing else, this first-hand exposure (so different from academic “demonstrations” by the faculty) will quickly show the newer student if medicine involves what he thought it involved. And, more importantly, if it is the field for him. True, there is frequently *some* patient resistance—who wants a student (of all things) peering down his throat, taking his temperature or pulse, asking personal questions? But, since much of primary-care medicine involves a fair amount of psychology and counseling, the sooner the doctor-to-be gets started, the better. Besides, once he gets that white coat on, he has taken on a certain mantle and will probably encounter few real problems.

So increased patient exposure is a curriculum change that may lead more graduates into primary care. True, the kindly old G.P. is



gone—if he ever existed. But the primary-care physician, he is the man of the future. Hopefully, greater student exposure to and involvement with patients will lead an increasing number of graduates into primary care. Like the advertisement says, “Try it, you’ll like it.”

This point needs a brief expansion. Medical students and medical students to-be have all expressed certain dissatisfactions with current medical-school thinking. All want increased patient exposure, and all want increased *practical* (as opposed to theoretical, or abstract) training. They apparently see their schools as too much devoted to training technicians, not doctors. So the various new programs being suggested around the country could go far in meeting student goals, as well as producing a qualified physician. In short, primary care, often a goal of the incoming student, is made out to be less appealing in the older curriculum. And so the new students’ goals go through a gradual shift, usually leading toward specialization, research, and such.

And that opens up another point: who will these new programs appeal to? Hopefully, the flexibility that most newer programs emphasize will attract more students who do not have precisely a pre-med academic background (the non-science student, for instance). These new programs should allow this kind of student to make up many of his so-called deficiencies—and still allow him to graduate in a reasonable amount of time.

For example, the increased time allowed for individualized instruction (as opposed to lectures and such) can be utilized for remedial instruction, not just for those lacking certain biology or chemistry courses, but for those who came from disadvantaged backgrounds. In other words, allowing a greater number of poor and/or deprived students to enter the once-closed citadel of medicine. Further, curriculum acceleration should have the obvious effect of encouraging more efficient learning. The individual can learn at his own rate. It is the donkey and the carrot: learn quickly, finish quickly. The decrease in formal class

hours would suggest that ultimately the medical schools could enroll more students—with no increase in faculty via good scheduling. And more students means more doctors. If a school does have a faculty shortage—or wants to increase its enrollment along with accelerating its curriculum—independent study (perhaps coupled with more and more computer-assisted instruction along with other technological devices) would certainly alleviate most faculty shortages as well as taking up any seemingly surplus students.

And there is yet another advantage to this kind of innovation; traditionally, or in the past, at any rate, medical schools have been guilty of what could be called “selective recruitment”. They admit mainly those who share a similar outlook on the profession, with the result being that the bulk of doctors in this country have shared economic, sociological, and professional points of view. How much criticism has been leveled at the AMA, characterizing it as an organization of such like-minded people that it could never change its position on anything? The AMA’s critics may themselves be guilty of stereotyping, but they have sensed the closed-corporation aspect that medicine gives to people outside it. As a profession, most doctors have gone along with the status quo: opposition to national health plans, the idea that medical care must be sought, that it is a privilege, not an absolute right. But many of these ideas are being questioned today. And, as most people know, American college students have been in the vanguard calling for social change. These same students go on to medical schools. Should they be rejected if they question some of the long-established traditions of the profession? Again, students and students to-be have noted how structured their limited medical-school experiences were. From the initial interviews onward, they felt they were expected to fit a certain mold, that they were to follow the direction the school mapped out for them rather than following what they wanted to do. Thus, such areas as public health and

primary care have been slighted in favor of more glamorous specialties.

And now that the public—including government—is becoming aware of the need for a broader-based health-care program, it would seem that certain positions must change. As an aside, one thing the public is becoming increasingly aware of is the so-called paramedic. Usually, one cannot get two people to agree on just what a paramedic is—or is not. But one is dealing with images again. Talk goes around about the 300,000 or so military medics returning to civilian life. What a waste of talent! Why, they can do just about anything a doctor can. Right? And even under battlefield conditions! Once again, TV, one of the public's main sources of medical knowledge, rushes in to provide the definitive answers. A new show, "The Healers", will premiere next fall. Concerned with a roving group of veterans, all paramedics, the pilot show chronicled how these fellows overcame a town's resistance to them. "We want *real* doctors", the townspeople said. And so these paramedics had to prove they were virtually the equal of Marcus Welby—which of course they did. The image-makers are at work again.

In fact, Duke University, among others, actually has a full-fledged paramedic program. It has so far graduated twelve persons from it. But, despite popular culture, the paramedic remains at best an adjunct to the physician—he is not a replacement.

It seems, however, that the new curriculum programs may seem to answer the need for a broader-based health-care system. By allowing the new medical student greater freedom of choice, both in study procedures and in career goals, perhaps he will not be so rigidly directed into the old patterns. And perhaps a more diverse group of students will be attracted to medicine. Although the medical-school environment has a profound socializing function (as does any kind of campus), at least the accelerated patterns break some of the old lock-step.

It now becomes the job of the medical schools to sell their innovations, to attract a diverse student body, and to continue—in the midst of their own innovations—to turn out top-flight physicians.

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### **An Appeal for Help**

Anyone knowing a physician, a hospital, a medical clinic, or other institution that has successfully treated a patient with progressive bulbar palsy, please write essential details to Edward J. Stevens, editor of the HEW Newsletter, Room 4233, DHEW North, Washington, D. C. 20201.

Progressive bulbar palsy is a motor neuron disease of unknown etiology, a form of amy-

otrophic lateral sclerosis. The biomedical scientists at NIH diagnosed Mr. Stevens condition in September, 1970, but the neurosurgeon in charge of his case lost interest once the diagnosis was made and he has no guidance from NIH.

Time is running out since death usually occurs within three or four years after the onset of symptoms.



# Ketamine Anesthesia for Pediatric Neurosurgical Procedures

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**Ketamine has been found to be a satisfactory anaesthetic agent in a series of neurosurgical procedures in infants and children.**

sions are included. One patient had excision of an occipital encephalocele, and three had sagittal craniectomies for craniostenosis. Table I summarizes this data.

TABLE 1  
PEDIATRIC OPERATIVE PROCEDURES PERFORMED  
USING KETAMINE ANESTHESIA

<i>Patient Number</i>	<i>Age</i>	<i>Procedure</i>
40-24-16	4 months	Ventriculoperitoneal Shunt
40-24-16	7 months	Revision of Shunt
40-17-37	5 weeks	Excision of Encephalocele
40-17-37	5 weeks	Ventriculoperitoneal Shunt
39-87-21	Newborn	Repair Meningomyelocele
37-81-56	11 months	Revision of Ventriculojugular Shunt
39-83-30	6 months	Sagittal Craniectomy
38-83-45	6 years	Revision of Subdural Jugular Shunt
38-48-45	6 years	Subdural Peritoneal Shunt
38-48-45	6 years	Revision Subdural Peritoneal Shunt
39-02-01	Newborn	Repair Meningomyelocele
39-02-01	2 months	Ventriculoatrial Shunt Revision
40-16-90	6 weeks	Sagittal Craniectomy
41-05-08	Newborn	Repair Meningomyelocele
41-05-08	8 days	Ventriculoperitoneal Shunt
40-27-76	3 months	Ventriculoperitoneal Shunt
40-27-76	6 months	Revision of Ventriculoperitoneal Shunt

Ketamine (5 mg./lb.) by the intramuscular route was used in all patients. Pre-medication with atropine was routinely used. The new-

MUCH ATTENTION has been directed to the use of ketamine as an anesthetic agent for minor surgical procedures<sup>1</sup> and neurodiagnostic studies.<sup>2,3</sup> Certain neurosurgical conditions in infants and children require relatively brief and frequently periodic operative procedures. A series of such operative cases is presented in which ketamine served as an excellent anesthetic agent resulting in less post-operative morbidity, less costly post-operative care regimens and shorter operating room times. The absence of complications in this series is offered in support of continued use of ketamine despite failures of the agent occasionally reported. Attention is directed to certain precautionary measures specifically related to neurosurgical procedures.

### Materials and Methods

Eleven patients having nineteen operative procedures using ketamine were treated at The Memorial Hospital, Danville, from January, 1970, through December, 1971. The ages of the patients ranged from one day (three patients) to six years (one patient). The newborn children all had repair of meningomyelocele. Twelve shunting procedures or revi-

From the Divisions of Neurosurgery and Anesthesiology, The Memorial Hospital, Danville.

borns having repair of meningocele, and the infants having sagittal craniectomy had intravenous fluids started, some by means of saphenous vein cut-down, to prepare for significant blood loss. Small amounts of 1/4% xylocaine were used in the areas of skin incisions to aid with hemostasis and dissection, and to minimize painful input to the central nervous system. The operative areas were prepared when the patients attained a very drowsy state, and drapes were applied using sterile transparent adhesive material rather than towel clips or sutures. Positioning was accomplished when the patient was quite drowsy; light restraints on the limbs and adhesive tape to position the head were helpful. Patients having sagittal craniectomies were positioned in the semi-lateral position with the head turned so as to place the sagittal plane horizontal to the floor. This allowed good access to the airway by the anesthesiologist. In the patients having shunting procedures, the cranial part of the operative work was done first, as a carry-over from the previous use of general anesthesia known to aggravate raised intracranial pressure. Operating times for the procedures ranged from seventeen minutes to seventy-five minutes, the longest cases being the meningocele repairs. Shunting procedures took twenty to thirty minutes. It was necessary to administer additional ketamine intravenously in the longer cases.

### Results

Satisfactory surgical anesthesia was obtained in all cases. None of the babies required tracheal intubation. The period of post-operative depression of consciousness was minimal; we were not aware of any untoward psychic events in the post-anesthetic period as often seen in adults. Most of the babies were able to begin alimentation without requiring supplemental intravenous fluids. None of the children required croupettes previously routinely used after general anesthesia with tracheal intubation.

### Discussion

We have presented a series of patients hav-

ing neurosurgical operative procedures accomplished under ketamine anesthesia. Whereas the total number of cases is not vast, it represents a total rather than a selected experience. Quite satisfactory results were obtained, and these we attribute to certain considerations to be emphasized.

When selecting ketamine as an anesthetic agent, the length of the procedure, as determined by the nature of the procedure, the possible operative complications and the speed of the operator should be considered. When the pathologic findings are unknown pre-operatively, another anesthetic modality may be preferred as the procedure may be prolonged because of unexpected findings. In all of our cases specific procedures were done for specific pathologic processes determined pre-operatively.

Janis and Wright<sup>4</sup> have reported failure of ketamine to produce anesthesia in two patients with disease of the cerebral cortex. In such cases general anesthesia may be preferred on the basis of cortical disease as well as prolongation of the operative time when such disease is unexpectedly found or more extensive than anticipated.

List and associates<sup>5</sup> described the augmentation of increased intracranial pressure with ketamine anesthesia. However, the increase in intra-cranial pressure associated with general anesthesia has long been known, and the findings of List *et al.* do not contra-indicate the use of ketamine. Indeed, the rapidity with which the operative work can be done makes it preferable by decreasing the time during which intra-cranial pressure is elevated. This was the rationale for performing the cranial part of shunting operations in hydrocephalic patients (with the attendant ventricular decompression) at the beginning of the procedure. The work of List *et al.* would also dictate this sequence and make it difficult to justify prolongation of the period of anesthesia in such patients for purposes of patient-study protocols.

During the periods of induction and recovery from ketamine anesthesia, a certain degree



of irritability seems to occur. By decreasing the painful sensory input as much as possible, more satisfactory results are obtained. For this reason we used adhesive drapes to hold towels in place, rather than suturing them or using towel clips. Small amounts of local anesthetic and small incisions were used so that the input from suturing the skin at the end of the procedures would be minimized. A generally quiet atmosphere in the operating theatre is also recommended.

### Conclusion

Good results using ketamine anesthesia for certain pediatric neurosurgical procedures are reported to emphasize the advantages of this agent. Certain considerations by the surgeon may make its use more acceptable.

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### Useless Injections for Nervous Women

Three national societies of physicians and scientists have taken aim at a small fringe element of practitioners who are reportedly giving useless injections to nervous women patients on the often incorrect diagnosis of low blood sugar level. Organizations issuing the statement are the American Diabetes Association, the Endocrine Society, and the American Medical Association.

A physical ailment known as hypoglycemia (low level of blood sugar) is quite rare and does not constitute an important health problem, says a statement published on the editorial page of the February 5th issue of the *Journal of the American Medical Association*.

When hypoglycemia occurs, it can cause sweating, shakiness, trembling, anxiety, fast heart action, headache, hunger sensations, brief

feelings of weakness, and occasionally, seizures and coma. "However, the majority of people with these symptoms do *not* have hypoglycemia; a great many patients with anxiety reactions have similar symptoms. Furthermore, there is no good evidence that hypoglycemia causes depression, chronic fatigue, allergies, nervous breakdowns, alcoholism, juvenile delinquency, childhood behavior problems, drug addiction or inadequate sexual performance."

Symptoms of hypoglycemia, sometimes occur in patients who have had an operation on the stomach, in some people with mild diabetes, and in a rather large group of individuals who are often nervous, thin women. "There is no good evidence that the chronic nervousness of these women is caused by low blood sugar level."

# In Defense of the Faculty

WILLIAM M. BICKERS, M.D.  
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**There is no substitute for the master-student relationship. If the present generation of students is to produce any masters of stature, they must find their inspiration among the teachers of today.**

THE EARTH ORBITS to that happy conjunction of Aquarius and the Lion, when the medical faculty defends itself yet once again from slings and arrows of outrageous fortune. This is the New Year, January, the month named for the Roman God Janus, the two-faced God: one face forever turned to the disappearing past, the other to the unknown future.

There was a time, and not too long ago either, when medical faculties everywhere were regarded with wondering awe by the laymen, green-eyed envy by non-academic colleagues, and something akin to adulation by students. Of late we have become whipping boys for laymen and politicians, objects of whimsical tolerance by our Cadillac colleagues in private practice, and subjects for thinly veiled disdain by students.

In a recent issue of "Pharos", erudite quarterly of our honor medical society, A.O.A. the question was raised: "To what extent does the medical faculty really know better than the student, in what good medical education consists?" It suggests further that the middle aged faculty member is essentially useless in advising or understanding today's student. This comes as something of a surprise. At A.U.B. we mingle with the students, or did in

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Annual Medical Student Society Lecture January 19, 1973, American University of Beirut, Lebanon.

the happy days of the old compound, eat with them, operate upon their wives, occasionally upon their girl-friends. But graduates returning from the ivory towers beyond the seas do tell us it is now quite possible to graduate, having caught only a fleeting glimpse of the professor enroute to the airport.

Mutual respect and esteem between student and teacher has been the hall-mark of American education. It is distinctively American, quite unknown elsewhere. This learning congeniality evolved a system of medical education which became the envy of the academic world. Now the students will tell us it is archaic, outdated, irrelevant. Yes, students revolt against tradition is a happily recurring refrain.

The first such medical student vocalizing that history records was led by William Harvey, later to attain immortality as discoverer of circulation of the blood. While a student at Padua, Harvey and his classmates protested the incompetence of the faculty. Whereupon the University instituted the first annual written examination with which students have been saddled ever since. But the irony of it is that the first examination was given *not* to test the student's fund of knowledge but to assay the faculties' ability to teach.

However, the real revolutionaries over the years have been not the students but the faculties. John Collins Warren, professor of surgery at Harvard, led the charge up Bunker Hill. Lavoisier, discoverer of oxygen, went to the guillotine in the French Revolution. "We have no need for savants," cried the rabble. Benjamin Rush, founder of America's first medical school, was imprisoned for enforcing the quarantine. Yes, the shouting and the tumult comes from the students, but the dying for the cause comes from the faculties.



There is no doubt that barriers have arisen in the past two decades between students and teacher. One thing that has led it is that mighty destroyer of all human relationship: lust for the almighty dollar, perhaps we should say the *once* almighty dollar. In the 1950's the American government reached into its citizens pockets to finance N.I.H. and a dozen other health phantasmagoria. The paramedics and basic scientists rode the crest of this lavish funding for what was euphemistically called in some places "research". The administrators jumped on the dollar wagon to cultivate a megalomania for buildings, which they could neither staff nor finance. Nurses and administrators assumed prerogatives of the doctors without benefit of M.D. Computerized efficiency in hospital administration reduced operating costs almost to the point of bankruptcy. Scientist and administrator alike proudly announced their emancipation from the long shadows of their clinical colleagues. Ph.D.'s who had never seen a baby born became professors of obstetrics and the F.D.A. which regulates physician prescribing fell to the biochemist.

All this has led, the students assert, to overemphasis on administration and research. It impedes the pursuit of our vocation, they say. We want to be doctors, to see and treat our patients as human beings, they tell us—or I should say they shout at us. They crash the A.M.A. meeting to bodily remove the chairman of the house of delegates from the rostrum. They announce with four-letter expletives the inhumanity of our profession. They proclaim that we care little for the patient, we are all head and no heart, all prose and no poetry. Science is robbing the doctor of his humanity, they exclaim.

"Science, true daughter of old time, thou art  
Who alterest all things with thy peering eyes  
Why preyest thou thus, upon the poet's heart  
Vulture! whose wings are dull reality—  
Hast thou not torn the sea nymph from her flood  
The elfin from the green grass

And from me, the summer dream beneath  
the Tamar tree."

Hopefully, the faculty is not totally impervious to compassion. Much has been done to bring ever increasing sophisticated health service to the people. Emergency rooms have become consulting centers day and night. In Lebanon, two university hospitals open their doors to all. Our faculty extends itself to Sidon and the Makkassed to broaden its scope of community service. The School of Public Health, with the clinical departments, initiates a system of total family health care. Yes, this faculty is quite aware of its community responsibilities!

Yet another vociferous outcry from students is for curriculum change. This vocalism is 20 years belated. Every medical faculty that I have known in the past two decades has been tinkering with the curriculum. Our university is no exception. This curriculum maneuvering is a pleasant intellectual exercise, best practiced I have observed on the balconies of Lebanese resort hotels. Devotees of the sport are chiefly deans and researchers. Curriculum committees are very popular with non-clinical people. They labor under the erstwhile hope that altering this and changing that will improve the finished product.

At the September meeting of University professors of Gynecology at Hot Springs, a full day was devoted to this not entirely fascinating, not thoroughly captivating subject. After some hours of verbal volleying, it was at long last concluded: "There are many favorable descriptions of curricular changes, usually published shortly after a change is made. Although some of us have shared enthusiastically in the design of new curricula, we have become concerned lately by lack of critical data to support our early enthusiasm."

Yes, tricks of curriculum sorcery have been tried and found wanting! The traditional curriculum structure, fabricated after the Flexner report, erected a Minerva temple to medical education, unrivaled, unequaled in all the world. Let us not completely forsake it.

The most glorious thing about youth is its idealism, its confidence that they can put the world in order, and do it right now. They think the injustices, the inequalities, the frailties of mankind can be cured by institutions. The truth is that the University is as helpless to do anything about it as time will prove the students to be. Only the inviolate laws of time and space, majestic forces of cause and effect, Emerson's Chancellors of God will resolve them. "The mills of the gods grind slowly, but they grind exceedingly fine."

Is there one among this faculty, who, in the days of his youth, foresaw entry into the cloisters of academic medicine? Is there one among us who anticipated the long wearisome hours in tissue committees, clinical committees and God only knows how much other tedious futility. Had we foreseen the reams of mimeographed nonsense which must daily be filed in the sanctuary of the nearest wastebasket, would we have entered the holy asylum of academic medicine? In the long, long dreams of our youth, did we not look forward only to becoming a doctor to attend the ills of suffering mankind. This was our hope, our vision, our dream, this was our consuming passion. What brought us then to this ice-capped Mount Sannin of academic endeavor?

Surely, each came by a different route but a Janus look will reveal that somewhere along the way, there was a teacher who unknowingly moved us, inspired us, created the image which to this very day we seek to emulate. These teacher-progenitors were most often clinicians, occasionally scientists, rarely the administrator. But one thing that they all had in common, invariably they were humanists. They were the Oslers, the Cushings and the Halstedes; relentless pursuers of truth but also lovers of life and people, concerned for things beyond the realm of laboratory or clinic. Youth does not vibrate in harmony to pure reason unadorned.

As for me, there were two or three, but more than the others I think it was Robert Green who breathed the holy fire upon me. Scientist and scholar, artist and poet he was.

He translated the aphorisms of Hippocrates from Greek to English. My first glimpse of the rosy-cheeked, gray-haired, immaculately groomed Bobby Green was as a junior resident. Custom had it in those days of the Boston Brahmins that the resident staff greeted the Chief at the hospital entrance on the first day of the academic year. On this day he emerged from an ancient Franklin automobile, nimbly took the hospital steps two at a time into the labyrinthian corridors of the sprawling City Hospital, with the residents pacing close behind. In the operating room he was the master technician, illuminated by a running description of every minute of the female pelvis. But to his juniors, the most remarkable attribute of this remarkable man was his prodigious memory, his infinite capacity for recall. The score of any football game he could recite off-hand; quotations from Homer fell like summer rain from his facile tongue. So fantastic was his memory that on a resident night such as this, the mimicking students have Dr. Bobby recalling his own passage through his mother's birth canal. His head buffets against the unyielding cervix. There is near drowning under the cascading waters of the ruptured amnion. The vertex appears under this pubic arch, and infant Bobby looks out upon the wonders of the delivery room and the beauty of Helen, the scrub nurse:

"Oh Helen; thy beauty is to me  
Like those Nicean barks of yore  
That gently over a perfumed sea  
The weary wayworn wandered bore, home  
To his own native shore  
On desperate seas long want to roam  
Thy hyacinth hair, thy classic face, thy naid  
airs  
Have brought me home,  
To the glory that was Greece  
And the grandeur that was Rome."

Thus did the residents parody Dr. Bobby's entrance into this vale of tears.

I remember on one occasion in the delivery room as the baby's head crowned the peri-



neum, the Chief wondered how a God who created all mankind to his own image and likeness, endowed him with the potentials of an Einstein or a Shakespeare, could reduce him to the indignity of entering this world between the two excretory ducts of the female.

Again in the nursery one day he pondered upon the laws of nature which denied the newborn control of its most elemental biological functions, making it necessary, as he quipped, to have a corps of nurse-aides on hand whose sole function it is to compensate for the defective plumbing installed by the Creator.

Yes, it is unforgettable characters like these who leave their mark upon us! Their technical excellence, their love of truth and above all their humanism weaves itself like a golden thread through our lives.

And so, to each of you, my colleagues of the faculty, there was a master who breathed into your receptive being the spirit of scientific inquiry. Invariably, the master does not instruct, he does not teach, so much as he exudes his love of learning. In the pursuit of knowledge, there is no substitute for the master-student relation. Knowledge acquired from

books alone takes little hold upon the mind.

There must be a vital spirit. To produce a Sahyoun, there had to be a Cruickshank, Jidejian had his Sami Haddad, Mustafa Khalidy and Philip Ashkar, their Dorman. It took a Leonard Moore to strike the spark of a Nachman and an Idriss, and a Kenneth Oliver to kindle the fire of an Alfred Diab. Fuad Sabra followed George Miller's star. Shahid and Tabbara found theirs in Edward Turner. In our own day, there was Kerr who could pass the torch to a Usamah Khalidy. The quiet, retiring genius of a Joe MacDonald could breathe life into the surgical department and establish, for the first time in the Arab world, a resident training program. What is such a program, save a refinement of the apprenticeship, the ancient master-student relation. Grant that in our own day, and in our own faculty, the student may not seek in vain for his mentor, his ideal incarnate, the star to which he too may tie his destiny.

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### **Eat Less and Still Stay Fat**

It is not necessary to overeat to become overweight, says a report published in the February 5th issue of the *Journal of the American Medical Association*. In fact, "There may be some truth to the often heard statement, 'Doctor, I don't eat as much as I used to, but I have gained weight.' "

The research study is by a group from the Mayo Clinic and Mayo Foundation, Rochester, Minn.

The study found that obese persons use up carbohydrate, fat and protein normally during rest and exercise. The problem is the steady decrease of calorie requirements with

age. This decrease is such that obesity can develop with advancing age while exercise remains constant, even if food intake is reduced.

The report reaffirmed once again the concept of most physicians and nutritionists that calories *do* count, and that exercise is an important part of a program aimed at maintaining proper weight.

The study is by Ralph A. Nelson, M.D., Ph.D.; Lorranye F. Anderson, M.S.; Clifford F. Gastineau, M.D.; Alvin B. Hayles, M.D., and Connie L. Stamnes.

# Rectus Abdominis Muscle Hematoma in Pregnancy

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**A case of a spontaneous rectus abdominis muscle hematoma in pregnancy is presented. The literature is reviewed emphasizing the potential seriousness of this condition and the perplexity of its diagnosis.**

**T**HE RECTUS ABDOMINIS MUSCLE HEMATOMA is a definite clinical entity with characteristic clinical findings. It is a relatively rare condition in which pregnancy seems to play a major predisposing role. Its importance and clinical interest lie in the fact that it can simulate acute intra-abdominal conditions and it is frequently misdiagnosed.

The first reported case in the literature is attributed to Samuel B. Richardson in 1857.<sup>1</sup> In 1937, Max Brodel and Thomas Cullen<sup>2</sup> discussed in detail both the anatomical and clinical aspects related to lesions of the rectus abdominis muscle. The relationship of this condition to pregnancy dates back to Stoeckel<sup>3</sup> in 1901. Since then, a few articles have described these hematomas occurring during pregnancy,<sup>4-8</sup> including a review of 53 cases reported by Richard Torpin, et al. in 1969.<sup>9</sup>

The rectus muscle hematoma usually follows a benign course. However, 13% maternal and 50% fetal mortality rates have been previously reported.<sup>8,10,11</sup> A case report occurring in our service is presented, and certain aspects related

to this syndrome are reviewed to alert the clinician to a prompt and accurate diagnosis.

## Case Report

C. E., a 24 year old, gravida 2, para 1, white female, EDC: 5/22/71, was admitted on 3/30/71 at 6:00 A.M. with severe steady abdominal pain. She had a long history of asthma with a recent upper respiratory infection and persistent coughing. Following a coughing spell six days prior to admission she noted a sharp lower abdominal pain which persisted and was aggravated by coughing. On the night of admission she awoke with severe steady abdominal pain following a coughing spell and was brought to the emergency room. Fetal movements were present on admission. She denied vaginal bleeding, syncope, nausea, vomiting, chills or fever.

The physical examination revealed a well developed pregnant woman, crying, restless and complaining of severe abdominal pain. The vital signs were: Blood pressure: 104/60; pulse: 100; temperature: 98.6; the skin was mildly diaphoretic. Scattered wheezes were noted throughout the chest. The heart rhythm was regular with no murmurs or gallops. There was generalized abdominal guarding and tenderness, most marked in the left lower quadrant. The uterus was estimated to be term size with tenderness and rigidity along its left border. Fetal heart tones and movements were present in the right lower quadrant. Periumbilical discoloration and ecchymosis was noticed. On pelvic examination no vaginal bleeding was seen. The cervix was soft, cyanotic, long and 2 cm. dilated. The fetus was found to be in breech presentation with intact membranes. The extremities had no edema and the deep tendon reflexes were normal.

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Appreciation is expressed to Dr. Landon G. Gant for permission to study this patient.



The laboratory data on admission: hematocrit: 36%, hemoglobin: 12.4 mgm %, W. B. C.: 15,300 with a normal differential, platelets: 305,470. A Lee-White clotting time was 10 minutes, the prothrombin time: 13.3 (control: 12.8), and the plasma fibrinogen level was: 250 mgm %. The blood sugar was: 120 mgm % and the serum electrolytes were: Sodium 139 meq %, potassium 3.7 meq %, chloride 107 meq % and carbon dioxide 19 meq %. The urinalysis was found to be normal—no albuminuria. A flat plate of the abdomen showed a single fetus in breach presentation. The impression on admission was abruptio placenta and the patient was prepared for immediate cesarean section. Prior to surgery regular uterine contractions were noticed with a marked increase of the abdominal pain. A right para median incision was made. All tissues were noted to be quite edematous. The uterus appeared normal and a lower segment vertical cesarean section was performed with delivery of a living four pound, eight ounce male infant. Further inspection of the abdominal cavity revealed a large mass within the left side of the abdominal wall. The left rectus sheath was opened and a hematoma was found extending from the left costal margin to the symphysis pubis. The hematoma was evacuated, the epigastric vessel was exposed and ligated at its bleeding point. A drain was left in place before closing the incision.

Post-operatively the patient did well and was discharged in good condition. The child expired 17 hours after birth from hyaline membrane disease.

### Anatomical Considerations

The rectus abdominis muscle and its anatomic relations were extensively described by Cullen and Brodel.<sup>2</sup> It is one of the muscles regulating intra-abdominal pressure. It is able to contract down to one-half its length. During pregnancy it can double its normal length and width. It extends from the costal margins to the symphysis pubis and is divided into four sections by three transverse tendons. The longest and most powerful section extends

from the level of the umbilicus to the symphysis pubis. Each section has its own motor nerve supply. The blood supply is derived from the inferior epigastric and the superior epigastric arteries, which anastomose in the mid epigastrium and run along the dorsal surface of the muscle. A complete double system of veins parallel the arteries.

The rectus muscle is enveloped by a strong sheath formed by the fusion of the tendons of the internal oblique, external oblique and transversus abdominis muscles. Of special significance is the fact that the posterior leaf of the rectus sheath ends at the linea semicircularis, and below this point only peritoneum and transversalis fascia are present. Since rectus muscle rupture and epigastric artery tears are most frequent below the umbilicus, then the hematomas formed here have greater freedom for expansion.

### Etiology

A rectus muscle hematoma can result either from muscle rupture or epigastric artery tear. Ruptures may occur in the normal muscle either by direct or indirect trauma. Direct trauma includes any type of external physical force applied against the abdominal wall. Indirect trauma is that which results from unusual strain or a sudden muscle exertion (coughing, vomiting, convulsions, sexual intercourse, exercise, etc.)

The hematoma may also occur as a result of muscle changes secondary to an associated condition. Over stretching of muscle fibers and venous engorgement of the rectus muscle found in pregnancy seem to predispose to hematoma formation. Other influential factors found in pregnancy are: multiparity, over thirty years of age and upper respiratory infections. The strain of labor surprisingly does not seem to affect the incidence of this syndrome. Influenza, typhoid fever and other infectious diseases may predispose to muscle rupture because of a hyaline type of degeneration as described by Zenker.<sup>2</sup> Acute cholecystitis and tetanus may also produce alterations in the rectus muscle leading to hematoma for-

mation. Vascular degenerative diseases, blood dyscrasias, hemorrhagic diathesis, and anticoagulant therapy may also be underlying factors in the development of rectus muscle hematoma.

An injury from retracting muscles or unrecognized bleeding in the immediate post-operative period may also lead to this syndrome. A surgical scar or old age may weaken the abdominal wall and thus predispose to hematoma formation. Never the less predisposing causes cannot usually be determined in up to 50% of cases reported. These hematomas are listed as ideopathic.

### Clinical Findings and Diagnosis

Pain is the most common symptom, usually acute in onset, described as a tearing sensation, and associated with a sudden strain. The pain may be gradual in onset if the bleeding is slow or of a small quantity. A painful swelling or mass at the site of hemorrhage is usually seen. It varies in size and most commonly is below the umbilicus where the blood is able to dissect more readily. The mass may be confused with an intra-abdominal mass, however, it does not move with respiration and will remain palpable with contraction of the rectus muscle as when the patient sits up (Fothergill's sign).<sup>12</sup>

Localized muscle rigidity is present in over fifty percent of the cases, making detection of the mass sometimes difficult. Discoloration or ecchymosis in the skin area above the hemorrhage or periumbilically a late sign,<sup>2</sup> but very suggestive. In some instances a space may be palpated in the muscle at the site of rupture.

Peritoneal signs simulating an acute intra-abdominal condition result from the irritation from the preperitoneal hematoma in the lower quadrants. Mild leukocytosis and a low grade fever may be noted as a result of blood absorption. A soft tissue density may sometimes show in x-rays. Needle aspiration of the mass may be helpful in diagnosis, but hazardous if an incarcerated hernia is the cause.

### Differential Diagnosis

The majority of cases of rectus abdominis

hematoma are diagnosed at surgery.<sup>13</sup> In a small percentage, 17-25%, the diagnosis is made pre-operatively. Peritoneal irritation resulting from the pre-peritoneal hematoma is the leading confusing factor. The differential diagnosis includes conditions such as a twisted ovarian cyst, ectopic pregnancy, abruptio placenta, degenerating myoma, ruptured uterus and pelvic abscess. Surgical conditions which have been confused are appendicitis, irreducible hernias and cholecystitis. Unless this clinical entity is kept in mind in the evaluation of the acute abdomen its diagnosis is very difficult to reach.

### Management

Conservative management is possible if the diagnosis is confirmed and the hematoma small. This includes bedrest, sedation, antitussives and icepacks. The hematoma will be absorbed spontaneously and occasionally will undergo calcification.

When surgery is undertaken either to make the diagnosis or because of an enlarging hematoma, the clot should be evaluated, the bleeders ligated, and the muscle repaired if ruptured. The peritoneum may have to be opened if there is still some doubt about the diagnosis. In term pregnancy cesarean section may be contemplated to avoid the muscle strain of labor.

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## BOOK ANNOUNCEMENT

HANDBOOK OF MEDICAL TREATMENT, edited by Milton J. Chatton, M.D., with eighteen associate authors, and Dr. Chatton. 648 pages, 13th edition, \$6.50, Los Altos, California: Lange Medical Publications, 1972.

This 4½ by 7 inch compact handbook appears for the thirteenth time since its original publication in 1949. It is pocket-sized for the busy resident, student, or medical practitioner—regardless of his training. Here in compact form, but encompassing the most recent innovations in medical therapy, is the latest information in medical therapeutics. The editor and his eighteen associate authors have taken care that the twenty-three chapters focus down on the recommended dosages of drugs and other advice of responsible medical literature.

Of the twenty-three chapters, five are devoted to infectious diseases of varying etiology, and specific therapeutic approaches available. The last chapter on cancer chemotherapy is briefly outlined with advised dosages and other information. However, caution for those who have not familiarized themselves

with cancer chemotherapeutic agents is important, due to drug-specific toxicities which are briefly outlined—and which deserve more study.

Chapter 5 on heart diseases is fifty-seven pages in length and Dr. Sokowlow, well known in this field, and as Professor of Medicine at University of California School of Medicine, with Dr. Jawetz, Chairman of the Department of Microbiology and Professor of Medicine at the University of California School of Medicine, have prepared an excellent current therapeutic review.

To summarize the high points of this *Handbook of Medical Treatment*: It is concise, informative, and has an excellent index, tables of normal values, and numerous charts and tables to summarize and identify the answer to the problem you as a practitioner or resident, or student, are seeking *now!*

To further emphasize its popularity—it has three foreign editions published in Italian, Turkish and Spanish!

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# Disc "Simulators"

**Back pain or neck pain, especially when followed by radicular pain and neurologic abnormalities requires a full work-up including myelography. Many cases which at first seem to be classic examples of the herniated disk syndrome are later found to be quite otherwise.**

THE CHARACTERISTIC DISC SYNDROME consisting of back or neck pain, followed by radicular pain in the extremity, and with reflex, sensory, and/or motor findings is well recognized by most physicians. Not quite so evident, however, are numerous situations occurring in patients which seem to conform quite as readily to diagnosis of herniated disc only to lead the unwary into diagnostic errors which could lead to surgical catastrophe for the involved patient. The pain may be localized to the back, vary in frequency, intensity or duration and may have been present for months or years before a correct diagnosis is made. Diabetic neuropathy, osteoarthritic nerve root compression, multiple myeloma, the lymphomas,<sup>1,2</sup> liposarcoma,<sup>3,4,5</sup> metastatic disease involving a disc, tuberculosis without obvious pulmonary or bone changes, neurofibroma,<sup>6</sup> meningioma,<sup>7</sup> may be among the offending disorders. In addition to the general physical and neurologic examination, it is recommended that laboratory studies with roentgenologic examination of chest and spine are imperative. The author is firmly convinced that myelography is advisable when a suspect neurologic lesion is enter-

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tained involving spinal canal or nerve roots. The following cases serve to demonstrate the vagaries of this syndrome.

## Case 1

A 50 year old printer had enjoyed excellent health except for a bout of renal colic years before. One month prior to admission to the hospital he believed he "strained" his back lifting a small outboard boat. Back pain localized to the low lumbar area and vague left leg discomfort had been intermittent until three days prior to admission when both back and left leg pain required the use of narcotics for relief of pain. Hospitalization revealed a minimally positive straight leg raising test on the left and diminution of the left Achilles reflex. X-rays of chest and lumbar spine were normal. Myelography revealed a root lesion at L5-S1, level, minimal, on the left. Total serum protein was greatly elevated, and electrophoretic pattern and bone marrow studies established the diagnosis of multiple myeloma. He was treated with cobalt therapy to the lower lumbar area with gradual relief of his back pain, and drug therapy for multiple myeloma was instituted. He had been followed for three years following discovery of his disease. Occasional left leg discomfort recurs at times with laboring activities but has never been severe. The left Achilles reflex continued to be depressed on all follow-up examinations.

*Comment:* This patient demonstrates the importance of laboratory studies in detecting early multiple myeloma. It is assumed that both back and leg pain and myelographic defect are due to this same condition and he has been treated with this thought in mind. However, he could have a small disc protrusion but his continued asymptomatic course certainly does not justify surgical exploration.



## Case 2

A 45 year old male was seen in consultation because of severe, persistent, radiating left leg pain of several months duration. Laboratory and roentgenologic studies were normal. Neurologic findings demonstrated a positive straight leg test and absence of the left Achilles reflex. A diagnosis of herniated lumbar disc was made and myelography was performed. Lumbar myelography revealed a surprise in that there was a characteristic disc defect at the L5-S1 level on the left but, in addition, a tumor defect (neurofibroma or meningioma) at L3-L4 on the right. At operation a ruptured disc was found and removed and a "neurologically silent" neurilemmoma was successfully removed as well. There was complete recovery, no neurologic deficit, and the patient is working at his previous occupation.

*Comment:* Without myelography the asymptomatic intraspinal tumor would have been overlooked. Removal of this patient's ruptured disc without benefit of myelography would probably have necessitated a second operation months or years later with greater difficulty in removing a larger tumor and with probable neurologic deficit. The importance of myelography is emphasized.

## Case 3

A 43 year old housewife was admitted to the hospital after refusal of an anesthesiologist to perform "nerve block" for relief of back, hip and perineal pain as well as leg pain. She had had three previous lumbar laminectomies, each in a different hospital and by three separate neurosurgeons, for "herniated disc". At the last operation she had been told that "arachnoiditis" was found and that this was the source of her pain. In desperation she consulted a distinguished neurosurgeon at a large University Hospital who advised cordotomy for relief of her postoperative, persistent, unrelieved pain. The patient and her husband refused his suggestion after much deliberation. During the course of reviewing her previous operative records and the taking of the history,

this examiner observed with interest that the patient would excuse herself approximately every thirty minutes to go sit in a hot tub of water. "This is the only thing I have found that gives me some relief". Past history revealed that the patient had undergone extirpation of a large liposarcoma of her right lower extremity years before. The surgeon was certain that all of the tumor had been removed and had never found any evidence of recurrence of tumor at check-up examinations over the intervening years. On examination the patient was found to be bordering on hysteria, complaining bitterly of persistent, chronic, severe pain and she would frequently burst into tears. She had decided that if the problem were on an emotional basis she would willingly undergo psychiatric treatment. She was found on examination to have "saddle" hypoalgesia to pin-prick and minimal weakness of rectal sphincter tone. Laboratory and roentgenologic studies were normal. Myelography was not performed. Pelvic examination and pre-sacral air studies confirmed a large retroperitoneal mass. Laparotomy revealed an extensive retroperitoneal mass surrounding the aorta, vena cava, and involving the lumbosacral plexus. Incomplete removal of the liposarcoma was followed by cobalt therapy which gave the patient some relief of her pain until her death 18 months later.

*Comment:* Three unnecessary laminectomies in quest of resolving this patient's disease with reduction of the patient to an almost psychotic state should be cogent enough evidence for greater care in diagnosis. One must state in addition that little thought was given to the pre-existent surgery for liposarcoma in the amanuensis. Conceivably, earlier accurate diagnosis could have altered the prognosis and longevity in this patient.

## Case 4

A 43 year old employee in a traffic tunnel stated that he had jumped from a small ledge, approximately three feet in height, to the roadway when he experienced sudden pain in his low back. This had occurred six weeks prior

to his hospital admission. This was followed by unilateral radiating leg pain, relieved by rest but aggravated by sitting, coughing, and sneezing. A trial of bed rest and traction had not significantly altered his symptoms, except that his pain had increased in severity. Neurologic examination revealed a positive straight leg raising test, a depressed patellar reflex, and hypoalgesia to pin-scratch over the L5 dermatome. X-rays of the chest and lumbar spine revealed no abnormality (these were later reviewed in retrospect in view of the operative findings and were considered to show no abnormality). Myelography revealed a defect at the L4-L5 level consistent with diagnosis of disc herniation. At operation dura and nerve root appeared quite normal but the disc herniation was found to consist of soft, gelatinous, greyish tissue and quite atypical in appearance in the opinion of the surgeon. Frozen section and permanent sections revealed "metastatic carcinoma, site undetermined". The immediate postoperative course was uneventful and the patient succumbed to his disease six months later. (Carcinoma of lung, metastatic to disc.)

*Comment:* This patient presented a rather classic case of disc herniation and preoperative studies gave no indication of the true pathologic lesion. This is the author's only case over many years' experience of a metastatic lesion to a disc without evidence of bony pathology. Emphasis should be placed on routine examination of disc material although it must be admitted that rarely will pathology be demonstrated as in this particular instance.

### Case 5

A 19 year old boy injured his back in the thoracic area when a scaffold broke while he was at work painting two months prior to admission. He had immediate pain in the mid-thoracic area posteriorly but this improved over the next few days only to recur with increasing severity and with only minimal improvement at rest. He noted slight difficulty in walking and this gradually became more marked. Neurologic examination revealed pain to percussion in the lower dorsal area (D10-

D12), hyperactive patellar and Achilles reflexes, unsustained bilateral ankle clonus and slight spasticity of both lower extremities on stretch testing. Straight leg raising test was negative bilaterally. There was no disturbance of bladder or bowel function and rectal sphincter tone was unimpaired. No sensory disturbances could be elicited. X-rays of the chest, thoracic spine, and laboratory studies were all normal. Myelography with pantopaque demonstrated a complete block at the D10 level. No attempt was made to remove the contrast medium. A diagnosis of herniated thoracic disc was made and surgery performed. Laminectomy D9-D11 revealed a large posteriorly placed epidural hematoma with compression of the cord. Removal of the hematoma was readily accomplished. The postoperative course of the patient was uneventful and he made a complete recovery over the next several months.

*Comment:* The diagnosis suspected in view of the neurologic finding and history was that of a central herniated thoracic disc. At operation an epidural hematoma, secondary to trauma, was found and effectively treated. It is important that the contrast medium *not* be removed at the time of myelography if a block is found. Although epidural hematomas may not uncommonly occur in the spinal canal after anticoagulant therapy, this is one of the few cases in the author's experience of such a lesion following trauma.<sup>8</sup>

### Cases 6 and 7

The following two cases are presented to illustrate their comparative clinical picture but quite diverse pathologic etiology.

A 50 year old man gave a history of recurrent mild back pain attacks years previously. Over the past few years he had noted gradual, progressive difficulty in walking and for this reason he was hospitalized on the medical service. Neurological examination revealed marked weakness of both lower extremities, inability to walk without support, a tendency to bilateral foot drop, and a sensory level to L3 bilaterally. Although there had been no



previous noteworthy bladder or bowel disturbance, it was necessary to place an indwelling catheter several days after admission to the hospital because of the patient's inability to void spontaneously. Neurosurgical consultation was obtained at this point. Laboratory and roentgenologic studies were normal except for minimal degenerative arthritic changes. Myelography was performed and revealed a complete block at the L3-L4 level. No attempt was made to remove the pantopaque. A diagnosis of tumor or central disc herniation was made and laminectomy performed. A massive central disc herniation was found at the L3-L4 level and removed successfully. The post-operative recovery of this patient was slow, but there resulted good neurologic improvement after two years.

A 22 year old Negress was seen because of a history of progressive weakness of both lower extremities and difficulty in walking following delivery several months previously. She stated that prior to leaving the hospital she had told her obstetrician (in another city) that she was having difficulty but he had apparently ignored her complaints. It should be mentioned that she had not had spinal anesthesia. When examined at the office the patient exhibited marked weakness of both lower extremities, hyperactivity of patellar and Achilles reflexes, no spine tenderness, rectal sphincter tone was absent (the patient had an incontinent stool on the examining table) and a bilateral sensory level to D9. A diagnosis of intraspinal neoplasm or disc was made. The patient was admitted immediately to the hospital where x-rays of chest and dorsal spine revealed no abnormality. Myelography revealed a complete block at D9; no attempt was made to remove the pantopaque. Laminectomy revealed an extensive intramedullary lipoma that was inoperable. Biopsy of the tumor with incomplete removal was accomplished. Post-operative course was one of no improvement.

*Comment:* These two cases are presented to illustrate some of the difficulty encountered in distinguishing a central massive disc protrusion from an intraspinal neoplasm, either of which

may cause compression of the spinal cord or cauda equina. Central disc herniations may frequently present with severe back pain and few neurologic findings; on the other hand such a lesion may present with predominant neurologic disability and little or no pain. The second of these two patients presented with a most unusual lesion, an intramedullary lipoma, and here the presenting disability was that of neurologic deficit without pain. The true nature of the pathologic lesion could be established only at the time of surgery. Early and prompt diagnosis of either of these lesions, i.e., central disc herniation or intraspinal neoplasm, is imperative if one hopes for neurologic recovery. Intramedullary lipomas have been considered inoperable in the past but it is conceivable that with the advent of microsurgical techniques these lesions may be partially or wholly extirpated with the possibility of a useful life for the patient.

### Case 8

A 22 year old Negro laborer was admitted to the hospital because of severe back pain of four weeks' duration. There was no history of trauma and past history and family history were not contributory. The patient had continued to work until his hospitalization by an orthopedic surgeon. The pain continued intermittently despite conservative management. Neurosurgical consultation was requested. X-rays of spine and chest and laboratory studies were all normal. His pain would tend to radiate at times into the anterior thigh and occasionally into the groin and testicle. No sensory, motor, or reflex changes were noted. Myelography was entirely normal. He was discharged to be followed on an outpatient basis. Approximately six weeks later he was readmitted to the hospital and now a psoas abscess was obvious on x-ray examination. Operation revealed a tuberculous abscess. No source of his tuberculous abscess was ever found. He was treated with appropriate medication and proceeded to complete recovery.

*Comment:* Intraspinal pathology may occasionally present with a paucity of objective

neurologic findings. Myelography was resorted to in the above patient for this reason but, of course, contributed negligibly to the diagnosis until the psoas abscess of tuberculous origin made its presence manifest. The author has had experience with another patient in whom a herniated disc was removed, corroborated by both the myelographic study and pathologic examination. Chest x-ray revealed no evidence of pulmonary tuberculosis. Six months later there was evidence of pulmonary tuberculosis on chest x-ray, positive sputum, and tuberculous involvement of the operated interspace and vertebral bodies by x-ray examination. She was treated medically with complete recovery.

### Case 9

A 58 year old white female was found to have Hodgkin's disease involving the mediastinum confirmed by cervical node biopsy one year previously. She made marked improvement on x-ray therapy, followed by maintenance of drug therapy. She was seen in neurosurgical consultation because of radiating leg pain of sciatic distribution, a positive unilateral straight leg raising test, and diminished Achilles reflex. These findings were substantiated by a myelographic defect at the L5-S1 level in the presence of a normal spinal fluid protein. Laminectomy was decided upon and at operation a herniated disc was found and removed. Postoperative course was uneventful with complete relief of her pre-existent leg pain.

*Comment:* In contrast to Case # 1 surgery was decided upon to establish the nature of the lesion. A correct diagnosis of herniated disc was confirmed with complete relief of the pre-operative pain.

### Case 10

A 25 year old housewife was seen in consultation because of back, hip, and vague radiating leg pain of two months duration in the distribution of the sciatic nerve. Straight leg raising test was bilaterally positive, Achilles reflex was absent in the painful leg, and there

was hypoalgesia to pin-scratch over the S1 dermatome. No significant muscle atrophy or motor weakness was detected at this time. Laboratory studies and chest x-ray were normal. X-rays of the lumbar spine including the sacrum were interpreted as normal. Myelography revealed a minimal L5-S1 defect and surgery was performed for a herniated lumbar disc. At operation a small posterior lateral herniation of the disc was found at the L5-S1 level and this was removed. Her postoperative course, however, was an unusually troubled one with persistence of pain, especially in the back, and this gradually became worse over the next six months. She was having domestic and marital problems at this time and her failure to improve was ascribed to this cause. Readmission to the hospital six months later because of pain and the development of unilateral foot and leg weakness now revealed an extensive destructive lesion of the sacrum. The previous films were reviewed and prior to her operation an area of early, minimal destruction of the sacrum was now seen; this had been overlooked by all previous physicians and the neuroradiology department. Biopsy of the sacral tumor was done and reported pathologically as "fibrosarcoma". She was then transferred to a university hospital where an extensive fibrosarcoma involving the sacrum and pelvic bone was removed by rather extensive surgery. She had extensive weakness of both lower extremities and disturbance of bladder and bowel function following surgery but she made a gradual complete recovery and is alive, well, and working ten years later.

*Comment:* More careful examination of the roentgenograms would have revealed the lesion, and earlier diagnosis and surgery might have been accomplished.

### Case 11

A 35 year old insurance salesman was referred for consultation because of severe shoulder, arm, and hand pain of three weeks' duration. There was no history of trauma, recent weight loss, nor neck pain. Neurologic examination revealed slight depression of bi-



ceps and triceps reflexes on the right and minimal weakness of both these muscle groups. There was no sensory alteration over the extremity and no atrophy or fasciculations. The pain had increased in intensity so that the patient had been unable to sleep and over the preceding few nights had slept upright in a chair. The pain was constant and unremitting over a period of several days. He was admitted to the hospital with a tentative diagnosis of herniated cervical disc. On admission x-rays of the cervical spine were completely normal. Chest x-ray revealed a superior sulcus tumor. Scalene node biopsy revealed metastatic adenocarcinoma of the lung. Despite cobalt therapy the patient survived only a few months and died of widespread metastatic disease.

*Comment:* This patient illustrates rather classic radicular and brachial pain secondary to brachial plexus involvement by Pancoast tumor. The author has had several similar cases in his practice. In the early stages, when no obvious pulmonary disease is evident, involvement of the brachial plexus by metastatic tumor can only be suspected if x-rays of chest, cervical spine and myelography fail to reveal a lesion. Rather characteristic of this pathologic entity, however, is the failure of analgesics and even narcotics to relieve the excruciating pain which may be present. Many such patients, especially if they have demonstrated emotional instability in the past, are not infrequently considered hysterics and even presumed to be addicted to narcotics. In contrast to the herniated cervical disc syndrome, the pain is almost always *constant*, relieved only for brief periods of time by the administration of narcotics, and increases in intensity with the passage of time.

## Case 12

A 60 year old physician's wife was admitted to the hospital because of severe lower back, hip, and calf pain of such intensity that morphine 16 mgm. and subsequently 32 mgm. administered every three to four hours failed to give adequate relief. The pain had developed in the low back after an evening of

dancing and had gradually become worse. There was severe discomfort in the posterior calf and anteriorly over the knee. There was no history of trauma and no weight loss. All laboratory studies and x-rays of the skeletal system were non-contributory. There was absence of the patellar reflex on the side of her pain. There was no evidence of vascular disturbance. Complete myelography was normal. Several days after myelography and after a presumptive diagnosis of "femoral neuropathy, etiology unknown" had been made the patient noted the sudden development of a painful mass in the anterior thigh just inferior to the inguinal ligament. The mass was firm, non-pulsatile, no bruit could be heard, and preoperatively the mass was suspected of consisting of metastatic lymph nodes, primary site unknown. At operation a large hemorrhagic thrombosed tumor mass was found overlying the femoral nerve. The tumor mass was removed as well as some of the muscular tissue into which hemorrhage had occurred. There was an uneventful postoperative course but three years later the patient still has pain in the distribution of the femoral nerve and requires occasional analgesics. Pathologically this lesion was found to be a cavernous hemangioma.

*Comment:* There were several bizarre components in the clinical picture. The onset of illness with back and leg pain still remains obscure. The neurologic picture of femoral neuropathy was eventually clarified when a mass developed in the femoral area. Femoral neuropathy is unusual and only a few cases are present in the literature. Interestingly enough, the few reported cases are secondary to laparotomy (most often appendectomy) when the nerve is injured or cut. No case comparable to the above is reported in the literature to the best knowledge of the author.

## Discussion

A number of cases have been presented to illustrate the point that a "disc is not always a disc". Back, hip, or sciatic pain so often resulting from a disc herniation with resultant

radicular irritation may be mimicked by many other types of lesion. Multiple myeloma, liposarcoma (so often infiltrating, rather than metastatic), the rare metastasis to a disc presenting clinically as a herniated disc lesion, neurofibroma or meningioma involving one or more nerve roots, concomitant disc herniation and tumor, intraspinal neoplasms (primary or metastatic) can all present in a rather bewildering fashion so that the clinician must keep these possibilities in mind. In addition to the studies outlined earlier in this paper, the author wishes to re-emphasize with particular vehemence the overwhelming evidence for myelography in patients presenting with a "disc" syndrome. It should be obvious that surgery without benefit of contrast study may prove inadequate, erroneous, and could even be disastrous to the patient. The presence of *asymptomatic* early tumors can, not infrequently, be discovered by myelography to great benefit to the patient and certainly, with greater technical success on the part of the surgeon. Consideration must be given also to the fact that the patient may have more than one disease. The tendency to contain all the complaints and findings in one etiologic entity must be abandoned on occasion. Diabetes, degenerative arthritis, atherosclerosis are only too frequently considered as contributing to the patient's neurologic status when, in actuality, a spinal space lesion is inadvertently being lost sight of. It is the author's opinion that if there exists the slightest doubt relative to a possible intraspinal lesion or its nature, myelography should not be deferred. The risk of the procedure is minimal and it is not within the scope of this paper to discuss the procedure in any technical detail. It would seem advisable to have several criteria relative to which patients should undergo myelography. If the clinical pattern is that of recurrence over months or years, if the disorder shows neurologic *progression*, if there is failure of improvement or retrogression, if there is any reasonable doubt of the accuracy of the diagnosis on clinical grounds, then the patient should have a myelogram performed. At this point

one is forced to discuss the so-called "conservative" treatment of these problems. A patient with only back pain or back disability and, not infrequently, *without* objective neurologic disturbance should improve within a matter of a few weeks: failure of such improvement, or development of neurologic disturbance such as bladder or bowel disturbance should render the patient a candidate for immediate myelography. Failure to diagnose a central disc herniation in either the cervical or lumbar area (in the absence of significant neurologic findings) may often end in serious and irreversible neurologic deficit even after the performance of successful surgery. It is quite likely that such permanent deficits are due, not to compression of the spinal cord or cauda equina primarily, but rather to interference and compromise of these structures by disturbance of the vascular supply.<sup>9</sup> It would appear rather incongruous that a patient suffering from either severe chest or abdominal pain (persistent and/or intermittent) would be treated with medications alone over a period of time and without benefit of the indicated electrocardiographic or roentgenologic studies. Yet one may not infrequently see patients followed for months and sometimes for years who have been told their neurologic symptoms and back disability is due to "arthritis", diabetes, and the like. A herniated central disc or neoplasm producing bladder or bowel paresis must be regarded as a surgical emergency. Mention should be made of the role of the elevated spinal fluid protein on spinal puncture as an indication of intraspinal neoplasm or disc herniation (especially central and obstructive). If the spinal fluid protein is elevated this may help raise the index of suspicion. Unfortunately, on many occasions the spinal fluid protein may be quite normal or only insignificantly elevated, and the author would advise against placing much importance on this laboratory finding. If also at myelography a complete block or *almost* complete block is found no attempt whatever should be made to remove the contrast medium. Any such attempt may lead to rapid progression of neu-



rologic deficit and paraplegia or quadriplegia depending on the location of the surgical lesion.

### Summary

1. A number of clinical cases have been presented to illustrate the point that a number of patients may present with a "disc-like" syndrome but the pathologic lesion may be far removed from this rather common disability. Diagnosis of such patients may be aided by the use of laboratory and roentgenologic studies, including myelography.

2. Great stress and importance is attached to the use of myelographic studies in ascertaining more exactly the nature, location, degree of intraspinal malformation and, also at times, the demonstration of an asymptomatic but co-existent lesion which can be successfully treated by surgery.

3. Failure of patients to improve rapidly on "conservative" management should indicate the additional importance of early myelography as an aid in diagnosis.

4. Delay in determination of a large central herniated disc or neoplasm leading to impairment of bladder or bowel function may result in an irreversible neurologic deficit even after successful surgery is performed. At the time of myelography no attempt should be made to remove the contrast medium and emergency surgery is indicated.

5. A patient with several diseases is quite apt to be diagnosed erroneously, since there

is a tendency to consider the neurologic symptoms or findings as related to the disease when, in actuality, the neurologic disturbance may be totally unrelated.

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### LET'S REMINISCE!

*If You Leave Your Spectacles at Home,*

Being old and presbyopic, make a hole with a pin in the corner of your visiting card; and you can read your clinical thermometer or anything else. *Railway Surg.*, May 21.

(*Virginia Medical Monthly*, July, 1895)

# Management of the Psychogeriatric Patient

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**The agitated geriatric patient is a disruptive problem in the nursing home. After trying a number of medications, haloperidol was found to be the most effective with the fewest side effects.**

**P**SYCHIATRIC PROBLEMS in a nursing home pose serious medical and management problems for the staff and tend to disrupt the social environment offered to the guests of the home.

Psychotropic medication has been an increasingly valuable clinical tool in relieving the guest-patient of moderate to severe psychiatric symptoms in which agitation is a major component. However, dosage required to effectively control these symptoms in a geriatric population often leads to unacceptable side effects such as severe hypotension, oversedation, and extrapyramidal symptoms. This side effect potential may lead to a dosage titration based on the appearance of side effects rather than the adequate control of symptoms.

In the medical management of the residents at our facility, Meadowbrook Extended Care Facility, we have used most of the tranquilizers on the market with varying degrees of success and it was only recently, 1970, that we started the use of haloperidol (Haldol®) in our patients at the nursing home. In fact, we began to use haloperidol as a last resort in patients since we understood it to be a highly potent tranquilizer and difficult to use. Initially we used it in patients who either did not respond successfully or were exhibiting unacceptable side effects while on other medica-

tion. After observing haloperidol's rapid therapeutic onset and effectiveness in low doses without significant side effects, our medical staff uses haloperidol in treating patient-guests exhibiting psychiatric symptoms in which agitation is a major component. We have found no difficulty in using this drug in patients who refuse medication since it is also available in an odorless, colorless, and tasteless liquid concentrate.

Below is a review of clinical data observed and recorded in twenty patient-residents manifesting psychiatric symptoms who were treated with haloperidol. These patients exhibited a combination of the following target symptoms:

Roaming	Combative
Confusion	Agitated
Restless	Throwing objects
Crying and depressed	Getting out of restraints
Tearing off clothes	Uncooperative
Requiring restraints	Belligerent
Loud and yelling	

The mean daily dosage of haloperidol used to control these symptoms was 4.0 mg, given in divided doses (range, 2 mg to 8 mg).

The following is a typical case history of a patient placed on haloperidol after unsatisfactory treatment with other antipsychotic medications:

A. R. is a 78-year-old female, diagnosed as having chronic brain syndrome. She was admitted to the nursing home on December 23, 1969. At that time she was confused and restless, wandering, getting out of restraints, and loud. The patient was started on thioridazine (Mellaril®), 50 mg, q.i.d., and became lethargic and sleepy but remained restless and would get out of restraints; thioridazine was reduced to 25 mg a.c. and 50 mg h.s. The patient be-



came less lethargic and sleepy; however, the restlessness and wandering increased. She was pulling at restraints, very uncooperative, and unable to feed herself. On January 29, 1970, after discontinuing thioridazine, the patient was given haloperidol, 2 mg, q.i.d. By February 1, 1970, she was walking with help, quieter and more cooperative, and did not require restraints. By February 8, 1970, she was able to feed herself, and was easily managed, and had less confusion. On February 20, 1970, our supply of haloperidol was exhausted and the patient was restarted on thioridazine, 50 mg, q.i.d. By February 25, 1970, she became more restless and confused and thioridazine was discontinued and chlorprothixene (Taractan®) was initiated to evaluate its potential to control restless agitation. By March 3, 1970, the patient became more restless and confused and haloperidol, 4 mg, q.i.d., was restarted and previous medication discontinued. She became less restless, more quiet, was sleeping and eating better, and did not require restraints. By May 6, 1970, haloperidol was decreased to 2 mg, q.i.d., without loss of symptom control. She has remained on 2 mg haloperidol, q.i.d., since, except for two occasions: once for a period of 11 days when she had an acute febrile illness in August, 1970, and haloperidol was discontinued; and a period of 12 days in November, 1970, when haloperidol had to be increased to 4 mg, q.i.d. because of increased restlessness, confusion, sleeplessness and trying to get out of bed. Since

then the patient has been on 2 mg haloperidol, q.i.d., although she remains confused. She does sit in a chair without restraints, sleeps well without restraints, eats well, although having to be fed, and is not restless.

## Discussion

A geriatric extended care facility must provide the best possible social environment for its guests and assure them of optimum medical and psychiatric care.

Our responsibility to treat the agitated, often psychotic, patient-guest and insure that he does not disrupt the daily environment of other residents requires a maximum of medical effort and sympathetic care. We feel that over-sedation has no place in our treatment approach. Our goal in these patient-guests is to calm them while still allowing them to be alert and capable of social interaction on a daily basis with the other guests. We believe that haloperidol helps us to achieve this goal.

Since the census of any extended care facility is mainly geriatric in nature, innovative and successful modalities of treatment should be the most important adjunctive feature of geriatric medicine. Our initial and subsequent successful use of haloperidol in our agitated patient-guests represent, to us, an example of continued improvement in the care of geriatric patients.

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# Treatment of an Assassinated President

## A Case Report

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**Finding the realities of his own life intolerable, this patient escapes by a fantastic, exaggerated, over-identification with an assassinated U. S. President.**

**I**DENTIFICATION is a chameleon-like defense mechanism present in people from the cradle to the grave. An infant, for example, regards the breast he suckles as part of his own body, rather than an external object. Little boys, in leaving a cowboy movie, may swagger as they walk to simulate the gait of their rugged, never-to-be-beaten, hero. Little girls and grown women alter their dress style and wardrobe to stay in keeping with their adored television personality. It is commonly known and accepted that children, during maturation, identify with authority figures in and out of their homes, or with "the older kid" on the block. Adults identify with cathected objects; friends, work peers, bosses, siblings, bridge partners; an endless list of "ordinary people".

Individuals of national fame are stimuli for massive identifications, in terms of numbers. These famous and charismatic people, great athletes, musicians, millionaires, stage performers, scientists, and so forth, gather a silent army of admirers who vicariously strengthen their own self-image by a form of mental mimicry. From the practical psychiatric viewpoint, identification with famous people, as opposed to ordinary people, is not necessarily of any particular therapeutic significance. "Who the object is" is less important than "what the

incorporated figure means" in the overall treatment framework of the specific patient.

The following report is about a patient who tries to reverse his inferiority feelings by a fantastic, exaggerated over-identification with an assassinated U.S. President. This patient sustains his self-esteem, which stretches into the realm of superlative grandiosity and is nourished by the dream of his inauguration; a pathological overkill of this defense mechanism.

### Case History

This patient is a 26 year old, single male first seen in March, 1971. His chief complaint, at the onset of therapy, was his lack of success with work and with women.

As a child, "I felt everybody was healthier than I." He was prone to abdominal pains, twitches in his arms, "a fear of blood and gore", and many somatic complaints. He nearly always converted the ordinary to disaster; a headache was a brain tumor. He engaged in a few childhood and early adolescent homosexual acts.

He is an only child and reports always feeling distant from his father, whom he describes as an "erudite, fakey slob". By comparison, he claims love for his mother, whom he recognizes to be "overprotective". He had few friends. He was unable to seek comfort from the church, "because I was afraid God would ask me to sacrifice my dog".

After graduating from a major university, with average grades, he spent two years on active military duty. Having taken ROTC while in college, he became an officer, but was told he did not possess the leadership qualities necessary for an officer. Consequently, he was relegated to a spare tire role in a meaningless



job. Because he never felt accepted by the other men, he moved from the B.O.Q. into an apartment, where he felt "more comfortable". From the apartment, where he resided for only a few months, he moved in with his parents, who lived near the military installation where the patient was assigned. The college, the military base and his parent's home were all located within a radius of less than fifty miles, and during the ten years from graduating from high school to the present, he slept at home for all but six months.

The patient has had limited heterosexual contact. At age 19 he petted for the first and last time. He has never had sexual intercourse, but he considers himself a "non-virgin", since "being a virgin is a state of mind". He related that he lost his virginity on a night when he asked a young lady with a "reputation for being an easy lay" to his apartment "to iron my khakis". While there, he opened some wine which they shared. He politely asked his guest if she would have sex with him, "but she refused because she wasn't in the mood". The patient explained to her that he was a virgin and that since she had "gone down" for so many other guys, "what difference would one more make? I finally talked her into it, but when we were both undressed, it wouldn't get hard. I've always been ashamed for not being circumcised." Thus his virginity was lost.

Regarding job failures, the patient was repeatedly criticized for a lack of aggressiveness. "Jobs bore me. I took my last one because my unemployment compensation was running out." When at work, he rarely showed ingenuity or initiative and consequently he was asked to resign from several jobs. Presently he works at the John F. Kennedy Center for the Performing Arts; a job he desperately wanted "because it sounded impressive".

In contradiction to earlier remarks, the patient said, "The reason I don't really worry about work or women is because down deep, my destiny is set. I know this will sound crazy; people have told me so and I rarely mention it except casually anymore, but I'm

to become President in 1984." Asked how he knows, he replied, "The Ouija board keeps coming up with this."

Similar to his political fate, the patient's lack of pursuit of feminine company, despite his ever present desire, is because "The Ouija board said I'll marry Mary in 1976." As it happens, Mary is a married high school acquaintance with two children. For years, he fantasized an involved, mutual, meaningful love. He was aware, for the first time, of feeling depressed, when he learned of her intended marriage, and while invited, he did not attend her wedding. It was at this juncture that he first sought psychiatric help, but his motivation diminished and he soon stopped therapy.

Regarding the Presidency, the patient explained how he "used to study and imitate President Kennedy's" speech pattern, dress, gait, and physical mannerisms. In college, he began to use a rocking chair, and memorized huge blocks of JFK's major addresses. He was mocked for his consciously recognized emulation of Mr. Kennedy. Whistling "Hail to the Chief" while pointing with his thumb pressed against his extended index finger, his behavior brought considerable harassment from campus peers.

Shortly after the assassination, the patient learned that his destiny was to become the President of the United States. This was not a slowly growing awareness, but a rapid Ouija decision thrust upon the patient. When confronted with the reality of becoming the President, he admits to the remote possibility that he could be defeated at the polls. At other times, he recognized this as a "preposterous fantasy". Yet, since that fateful day in November, 1964, the patient has been meticulously, secretly ("since I get tired of people making fun of me when I talk about it") planning his campaign. "I've never thought much in terms of a lower office; it's always been *the big one* right away. But there's so much I don't know—especially about domestic affairs and I've never worked on a campaign."

He talks freely in his individual therapy session. "I haven't decided on my immediate

future. I want to take a few more courses, especially in economics. Also, some sociology. I need a better grasp of social issues like drugs, ghettos, crime and racial problems. I anticipate objections. People will say to me, like with Kennedy, *gee kid, you're too young*. But I'll tell them what Jack did—if you used age as an argument, Jefferson would not have been allowed to write the Declaration of Independence. Jack always had six or seven rebuttals and I will too. But my real problem is this, doc. When do I make the big move? Must I run for Congress first?"

In group therapy, the patient is far, far less loquacious. His brief mention of his political future to the group members, including the role of the Ouija board, was met with skepticism and snickers. In a private session, he said this about the group members, "I can't go forcing myself on other people like Harold Stassen. He's a joke, a household word and I don't want to be like that. I'd lose their vote."

### Discussion

This case bears a strong resemblance to the true social impostor,<sup>1</sup> who actually assumes the name, title, life style, and profession of his chosen object. While this patient does not go to the extreme of the impostor, his exaggerated fantasy life, edging near a true delusion, handles for him the same needs which the impostor has.<sup>2</sup>

The patient's history reveals that he feels weak and sickly physically and defective sexually. His masculine identity is poor. Like a true impostor, he has a need to deny his own role because it is unacceptable to him. His dependency on his parents, his passivity, his lack of achievements, and feelings of inferiority are reversed in his fantasy life. Like the impostor, he sets unattainable goals and surrounds himself with a fairy tale acquisition of future strength, power, attention, admiration; qualities not present in his own life.

So long as he is to become President, his anxiety is controlled. However the patient set a time limit; 1984, and as the days tick by, he comes nearer to facing his own reality. An

effort to relieve the pain of self-confrontation brought the patient to psychotherapy. Therapy was begun well in advance of his presidential dream. Thus, he has allowed himself time to work through his disappointment and to slowly reduce the gratification his many narcissistic wishes provided in fantasy.

Another curious element in this case is the indigenous quality of his fantasy. The patient is a resident of the District of Columbia, where it is nearly impossible to spend a day without contact with some major memorial to his assassinated hero. Numerous schools, libraries, cultural centers, museum art works, the flickering eternal flame from his grave; indeed stimuli are plentiful. This latter question, that of indigenous identification, is raised because it seems possible that geographic location, in this instance, may contribute to object choice and the force of retaining the fantasy. However, the relationship between geography and one's fantasy life remains problematic.

### Summary

A case of massive over-identification, dynamically resembling the impostor, but stopping short of a psychotic delusion is presented. Especially unusual was the chosen object of identification; an assassinated United States President. Gratifying a desire for glory, strength, and masculine aggression were achieved in fantasy by rising above a defective self-image. A time limitation, set by the patient, for the slow starvation of his fantasied symptoms is another interesting mechanism presented, along with the possibility of geographic influence in the patient's choice of an object.

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## **Osteosarcoma**

Primary malignant tumors of bone are quite rare and represent less than one percent of neoplasms recorded at the University of Virginia Hospital during the years 1961-1972.<sup>1</sup> Of primary malignant bone tumors, osteosarcoma is the most common and it accounted for twenty-seven percent (27%) of malignant bone tumors at our institution during this time.<sup>1</sup> Other larger series have a similar incidence.<sup>2</sup>

Osteosarcoma, or, as some would prefer to call it, "osteogenic sarcoma", refers to those malignant tumors of bone which are characterized by the predominate production of osteoid matrix by tumor cells. Early classifications<sup>3</sup> included sarcomas which formed or arose from cartilagenous or fibrous tissue. Now these tumors are classified respectively as chondrosarcoma and fibrosarcoma.<sup>4,5</sup>

The vast majority of tumors classified as osteosarcoma are primary bone in origin, although scattered extraosseous osteosarcomas (arising in soft tissue aside from periosteum) have been reported.

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Sponsored by the Professional Education Committee, American Cancer Society, Virginia Division.

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Osteosarcoma of bone should be divided into two main categories: Intramedullary (those that arise in bone) and Periosteal (those arising from the periosteum), as they are quite different in their general behavior and ultimate prognosis.

While intramedullary osteosarcomas have been further subdivided into many types (i.e. sclerosing, osteolytic, medullary and telangiectatic), based on histologic characteristics, these appear to be of little consequence as far as the ultimate course or treatment of the disease.<sup>2,6</sup>

The object of this paper is to discuss some of our observations and the more current feelings with regard to recent developments in the understanding and treatment of these tumors.

### **Periosteal Osteosarcoma**

Periosteal osteosarcoma (parosteal or juxtacortical osteosarcoma) is a slow growing tumor thought to arise from the periosteum of the diaphyseal surface and often approximates the lower metaphyseal periosteal surface. The posterior distal femur is the most frequent site of occurrence.<sup>6,7,8</sup> Sex distribution appears equal with late teens the predominate age of onset. A deep palpable, non-movable mass, fixed to bone is frequently the only presenting symptom. The presence of pain as a symptom is variable and generally late in the disease. Both the gross appearance

and x-ray reveal a dense osseous mass resembling an irregular localized periosteal reaction with occasional broad, shallow, concave, scalloping of the underlying outer cortical surface.<sup>6</sup> There is no radiographic or macroscopic evidence of intracortical or intramedullary involvement.<sup>7</sup>

Histologically, the osteoid and bone formed by this tumor is often so well differentiated it is difficult to distinguish from periosteal reactive bone.<sup>6,7</sup> The stroma between the bone usually gives the clue to its malignant nature.

These tumors are usually treated by amputation alone, although there is evidence to suggest that wide local block resection may be sufficient in selected cases.<sup>2</sup>

Since periosteal osteosarcomas are slow growing and late to metastasize, their prognosis as a group is good, especially those in the extremities as compared to axial skeleton.

### **Intramedullary Osteosarcoma**

While most osteosarcomas\* arise during the second decade of life with a male predominance of 2:1, cases under the age of five and over thirty have been encountered.<sup>2,6,9</sup> Osteosarcomas occurring in "adults" (following closure of all growth plates) are usually associated with some preexisting bone disorder, most commonly Paget's disease of bone, occasionally (up to 20 years) following irradiation and rarely other bone lesions such as fibrous dysplasia, infarcts and osteochondromas.<sup>6</sup>

The metaphyseal area of long bones is by far the most common site of origin for osteosarcomas. The bones about the knee joint are most frequently involved with the distal femur predominating over the proximal tibia by 3:1.

Clinical and histologic observations of normal growth patterns of bone has led Johnson to suggest a relationship between amount and type of normal cell activity in bone and the

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\*The term osteosarcoma in this section refers to the intramedullary type unless otherwise prefixed.

incidence and the location of the various types of bone tumors encountered.<sup>10</sup> The following might explain much about the incidence, location and behavior of intramedullary osteosarcomas. The metaphysis is the most metabolically active area in the growing bone. The mid- and diaphyseal half of the metaphysis is characterized by intense concentrated osteoblastic activity in normal growing bone. In general, long bones grow through greater lengths, and the distal femur and proximal tibia account for the greatest span of growth, both in time and distance. Males tend to be taller than females; hence, greater growth. Paget's Disease of bone (a disorder histologically characterized by osteoclastic resorption and intense osteoblastic production of abnormal poor quality bone) is associated with the vast majority of osteosarcomas arising in the middle-aged and elderly and suggests further support for the concept of related cell activity and bone tumors.

### **Signs and Symptoms**

Pain appears to be the most common presenting symptom.<sup>6</sup> Although slight at first, the pain usually becomes more severe and persistent within a relatively short period of time. The pain is localized to the involved area in most cases, but may be referred to other areas. Swelling is also a common symptom. The duration of symptoms averages about four months before treatment.<sup>9</sup> Systemic symptoms such as pallor, anorexia, weight loss or fever, usually occur only late in the course of the disease. Pathologic fracture is relatively rare. Swelling is the most common finding on physical examination, with occasional increased localized warmth or enlargement of superficial veins. The area is frequently tender to touch.

### **Antecedent Trauma**

The discovery of bone tumors following trauma has created much discussion as to the possible traumatic etiology of this tumor. It is the opinion of most experts<sup>6,9</sup> that there is no basis for this assumption. It is probable that the traumatic incident brings to light and



focuses attention on symptoms of an already existing tumor.

### Laboratory Data

Though occasionally normal, serum alkaline phosphatase appears to be the most consistently abnormal blood chemistry. The elevation is usually not high (average twice normal).<sup>6</sup> A significant elevation may carry with it a poor prognosis.<sup>11</sup>

### X-Ray Features

The radiographic features of osteosarcoma are usually a combination of bone destruction (lysis), tumor bone formation (increased density) and periosteal reaction (periosteal new bone formation). As previously noted, these tumors begin in the metaphysis, frequently with destruction, and as the cortex becomes involved the periosteum is stimulated to form reactive new bone. The pattern of the periosteal reaction, lamellar or osteophytic (sunburst) closely reflects the activity (aggressiveness) of the tumor. If the tumor grows so rapidly as to erode through and destroy the overlying periosteal reaction, then the triangle created by the cortex, outer periosteal rim and area of tumor breakthrough is referred to as "Codman's triangle". (Fig. 1) Following this breakout a large soft tissue mass may become evident. The epiphyseal line (growth plate) is usually not penetrated early in the disease. The presence of either a Codman's triangle or violation of the growth plate reflects a highly aggressive malignant tumor and generally indicates a poor prognosis.

### Pathology

The gross characteristics of this tumor depend on both its histologic features and duration of time in which the tumor has existed prior to resection. By the time it is first seen it has frequently penetrated the cortex. Early it is firm, white, sometimes elastic, and where undergoing ossification it becomes gritty and yellow. Later, the tumor may be focally hemorrhagic with occasional areas of apparent

necrosis, and often has sizeable concentrations of dense, white, sclerotic tumor bone.<sup>6</sup> (Fig. 2) Comparing figure 2 with figure 1 it is obvious the x-ray not only reflects the gross

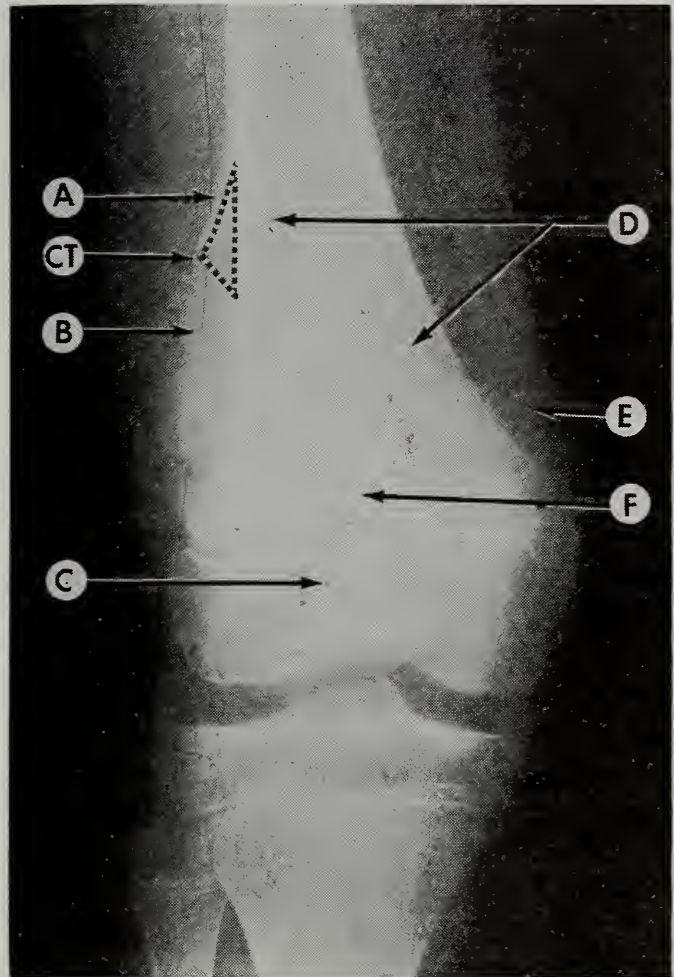


Fig. 1. X-ray of a typical aggressive osteosarcoma. A) Outer rim of periosteal reaction, CT) Codman's Triangle, B) Area of tumor breakthrough, C) Tumor violating epiphyseal growth plate, D) Areas of destruction (lysis), E) Periosteal reaction, F) Area of increased density (tumor bone formation).

appearance (hence an essential part of the pathological specimen) but presents a unique opportunity to select the most likely diagnostic area for biopsy.

Microscopically, the frequently varied patterns are reflected in the numerous histologic subclassifications of osteosarcoma (sclerosing, osteolytic, etc.). Lichtenstein has stated that the essential criteria for diagnosis is the presence of frankly sarcomatous stroma with direct formation of tumor osteoid by this stroma.<sup>12</sup>

It has been our experience and others,<sup>10</sup> that few osteosarcomas show only pure osteoid



matrix formation. Frequently other malignant histologic patterns are encountered (i.e., fibrosarcoma pattern within the soft tissue extension and chondroid elements and giant cell

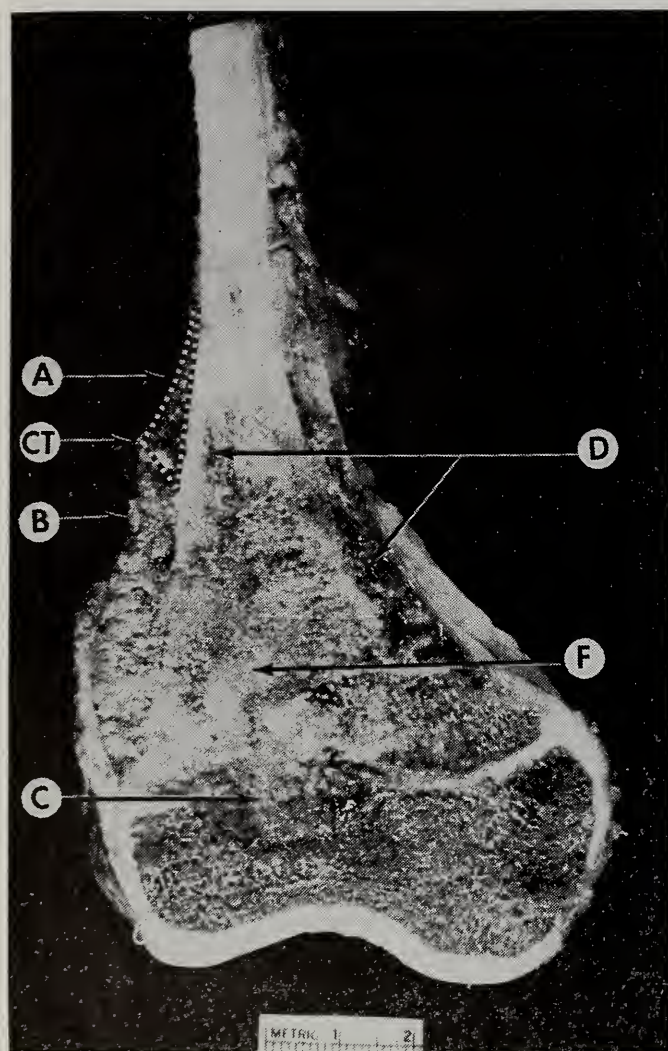


Fig. 2. Gross frontal plane section of above specimen (slightly more posterior) A) Outer rim of periosteal reaction, CT) Codman's Triangle, B) Area of tumor breakthrough, C) Tumor violating epiphyseal growth plate, D) Areas of destruction (lysis), F) Area of increased density (tumor bone formation).

tumor within the medullary portion of the tumor). This is also true with other types of primary malignant bone tumors. These variations in tumor pattern may result from the same mechanism which directs the fields of various types of cell activity in the normal growing metaphysis.<sup>10</sup> This suggests that the criteria for diagnosis include the predominant differentiated cell pattern of the tumor as it exists within the bone. Prognosis, then is determined by the tumor's biologic aggressiveness as reflected in the clinical setting, x-ray

and histology and not by a single diagnostic term.

It should also be noted that myositis ossificans, a benign condition in which ossification takes place in soft tissue (mostly muscle and usually following trauma), may have a very similar microscopic appearance to osteosarcoma (especially in the third and fourth week of development). Radiographically, the underlying bone is normal. At this institution we have had three such cases referred for treatment with a histologic diagnosis of osteosarcoma. Further examination and observation revealed that the patients did, in fact, have myositis ossificans.

Because of the wide variation in histologic appearance of osteosarcoma and because this diagnosis usually requires mutilating surgery, it is felt that interpretation of frozen and permanent sections should probably be confined to centers where pathologists are well experienced in this entity.

### Treatment

The treatment of osteosarcoma is wide surgical ablation (amputation). Our experience to date, and that of others, would indicate that the further away from the tumor that the limb is ablated, the better will be the prognosis, but this too is controversial.<sup>6,12</sup>

"Skip areas", that is areas of tumor at levels higher than those demonstrable roentgenographically, have been reported by gross examination. The chance of operating below or through these areas is of course reduced by the more radical surgery. Varying methods of surgical technique, such as operating below one tourniquet or between two tourniquets,<sup>13</sup> to decrease the risk of propagating tumor emboli during surgery seems worthwhile. Recently Kuehn and his associates have reported success in a small series of patients by performing hip disarticulation for femoral lesions after abdominal exploration and ligation of the iliac vessels.<sup>14</sup> This method also affords the chance to examine the abdomen for presence of pathologic lymph nodes. Although metastasis of osteosarcoma is generally considered



to be by the vascular system, we and others<sup>15</sup> have encountered lymphatic metastasis.

Radiation alone is of no apparent value other than palliation. However, the popularity of preoperative radiation appears to be enjoying a resurgence in this country. Although initial reports in the 1930's by Dr. Ferguson were favorable,<sup>16</sup> other centers were unable to reproduce these results. With the introduction of supervoltage radiation and newer methods of applying this radiation, a number of favorable reports have appeared, in which the results of preoperative radiation plus amputation appear better than amputation alone.<sup>17,18</sup>

Other modes of therapy for this condition are in the investigative stage. Immunotherapy shows some promise.<sup>19</sup> Chemotherapy has been used only for its palliative effect and for metastases. At present, adriamycin seems to be the most effective agent in this regard.

### Metastasis

Death from this condition is usually secondary to pulmonary metastasis. The vast majority of these metastases occur in the first two years after surgery. A second and not infrequent site of metastatic osteosarcoma is bone. Obviously, prior to performing ablative surgery for this condition, chest x-rays and a bone series should be performed to be assured that the patient does not have distant metastasis. Miller has shown, by using mathematical measurements, that a number of patients whose preoperative chest x-rays were negative in all likelihood had subclinical pulmonary metastasis at the time of surgery.<sup>20</sup> Our experience using pulmonary laminography and magnified chest films in searching for metastasis has not been rewarding.

There have been a number of reports of resection of isolated pulmonary metastasis with presumed complete cure. Careful consideration should be given to this mode of therapy in appropriate cases.<sup>15</sup>

### Prognosis

The prognosis of this tumor is extremely poor, with an average five year survival of

less than 20% in most series. Factors which for the most part do not seem to affect the prognosis are: age (except in those osteosarcomas arising from the preexisting conditions), sex, histologic type, or duration of preoperative symptoms. The location of the tumor does appear important. Generally the more distal the lesion from the axial skeleton the better the prognosis.<sup>21</sup> While the modes of treatment, specifically, level of amputation, adjunctive surgical techniques, and preoperative radiation, are the best we have at hand today, their degree of success has been less than encouraging, and there is a definite need for further study and perhaps new approaches.

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### **Comment**

Although a familiar word to all of us, "osteosarcoma" (osteogenic sarcoma) is a rare entity in most of our institutions. This nice review of the current status of the diagnosis and management of osteosarcoma by Drs. McLaughlin and Sweet is an up-to-date summary of the current status of a difficult problem. Most of us will never actually treat patients with these lesions, but we should all be alerted to the diagnosis and appropriate management, nevertheless. A young patient with an area of pain and swelling, particularly in the extremity, should prompt us to think of osteosarcoma and institute measures to achieve as early a diagnosis as possible.

The plan of management of potentially malignant bone tumors is dependent on a proper diagnosis by a combination of radiographic and pathologic assessment by both an experienced radiologist and pathologist. In view of this it behooves all of us to be certain that these diagnostic steps are actually taken before aggressive surgical management is instituted. This may be an instance where careful and knowledgeable outside consultation by those experienced in the diagnosis of this uncommon neoplasm is obtained before proceeding with what may well be very disabling surgery.

One lesion that is sometimes confused with a malignant bone tumor on physical examination is the occasional soft part sarcoma that is in close proximity to the bone. In many ways the concept of management of these lesions is similar to that of malignant bone tumors although amputation may not always be required for these lesions in the soft parts if an adequate "envelope" of normal tissue can be obtained at the time of surgical resection. For many of these patients, just as with osteosarcoma, amputation of the extremity is the only means of management if the patient does have potential for curability by virtue of the absence of distant metastases.

A major problem in the clinical management of osteosarcoma is the high incidence of pulmonary metastases. Systemic chemotherapy has not been too helpful in the management of these patients. Although the authors state that careful consideration should be given to resection of isolated pulmonary metastases in selected patients, most physicians have been pessimistic about this approach. There are isolated patients, however, who are suitable for this procedure, just as with soft part sarcoma that has metastasized to the lung, and we are now following one patient more than seven years after resection of an isolated metastasis from an osteosarcoma previously treated by lower extremity amputation.

The prognosis for osteosarcoma is obviously limited despite the use of all the current methods of treatment available to us. These authors may actually be overly optimistic by quoting



a figure near 20% five year survival for this tumor for most sites of origin (mandible lesions may be an exception, however). There may be an improvement in this figure in the future, hopefully, and this will probably be in the field of adjuvant chemotherapy or immunotherapy. Work in these areas has not developed to the point where these methods have an established

role in the overall management of these difficult lesions, but some of the current experimental work is intriguing. Until improved techniques of management can be developed, we must continue to attempt to diagnose these lesions as early as possible and follow the treatment plans outlined in this review.

THE EDITORS

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### Health Maintenance Requires a Better Informed Public

The best health maintenance organization for any individual is the organization he creates for his own life, declares an editorial in the February 12 issue of the *Journal of the American Medical Association*.

Many aspects of health care defy solution through the development of "systems" and application of technology to health care delivery. But health education is an important area that can benefit from application of technology.

"Delivery of health care to the U. S. population poses problems in organization or systemization particularly and peculiarly because such delivery is nothing like delivering manufactured goods.

"The organization, whatever its form or forms, must deal with people—all kinds of people, many of whom cannot think clearly about health. For that reason, among others, technology has little to contribute to the sys-

tem. Health education is probably the most important area for technological exploitation."

One problem in health education is the variety of conflicting messages that reach the public.

"A sound TV health message from a respected source may run in tandem with an advertisement for the best drug to treat tension headaches. Respected sources sometimes make opposing announcements about a major disease such as breast cancer or a minor affliction such as treatment or prevention of the common cold.

"Thus, while health education of the public is indeed important and the means are at hand for its achievement, the means are not being used adequately or efficiently. Organized medicine plus other capable and interested factions have a prime mission to unscramble health 'education' as it now exists and widely and wisely use the means to achieve the end."

MACK I. SHANHOLTZ, M.D.  
*State Health Commissioner of Virginia*

## **Length of Hospital Stays Under Medicaid**

All physicians and hospitals are reminded of the need to plan carefully for the early (but timely) hospital discharge of Medicaid recipients, and such planning ideally begins at the time of hospital admission. Both local welfare and local health departments are willing to assist, but they should be informed **BEFORE** the patient is ready to go home or to an institutional setting.

### **Outline of Current Utilization Review Efforts**

It has been the position of the Medical Assistance Program to meet the hospital needs of each recipient as determined by his physician. Also, Hospital Utilization Review plans have been implemented for all Medicaid patients regardless of age. Utilization Review Committees are expected to make certain that the proper physician certifications of need for hospital stay appear on the chart before the 12th day of stay, again by 18 days of stay, and at least every 30 days thereafter. Most hospitals bring each case to full committee review as an "extended duration stay" by at least 21 days. The Virginia Medical Assistance Program expects the committee to forward a Long Stay Report for review and appropriate assistance in discharge planning when a stay reaches 21 days.

At this time several factors relating to length of hospital stay need to be identified and re-emphasized.

1. The General Assembly has attached the following amendment to the 1972-74 budget bill.

"In the administration of the Medicaid program, the State Department of Health

shall take affirmative action to insure that the length of any one hospital confinement for a patient whose hospital expenses are paid from the appropriations in Items 332 and 333 shall not exceed 15 calendar days unless certified essential for the proper treatment of the patient."

2. Many hospital Utilization Review Committees are not submitting Long Stay Reports as required. We know that in some cases eligibility determination is prolonged but our studies show this not to be true for most of the cases not reported. Physicians should know that once a Long Stay Report is forwarded, the Virginia Medical Assistance Program medical and nursing staff have had excellent results in catalyzing discharge.

### **Changes Effective December 15, 1972**

The following procedures are required by general hospitals participating in the Medical Assistance Program:

1. All Utilization Review plans require a committee review of all cases reaching 14 days stay, as soon as possible; that is, an extended duration stay is defined as one reaching 14 days. We have every reason to believe this definition will shortly be required by Medicare.
2. Effective December 15, 1972, a Long Stay Report is required for all patients reaching 14 days of stay to be received by the Virginia Medical Assistance Program central office no later than 21 days following admission.

For those stays over 14 days where the appropriate Long Stay Reports are not



received by Virginia Medical Assistance Program, the invoices will not be paid but will be set aside for review and determination of the medical necessity for the stay as a condition for payment.

3. No changes are being made in the requirement for timely physician certifications of need for hospitalization.
4. Short term inpatient care for tuberculosis and psychiatric illness in the general hospital is defined to be 60 days or less. Stays longer than 60 days are not covered by Virginia Medical Assistance except on the written approval of the Medical Director, Virginia Medical Assistance Program. Note is made of the fact that State psychiatric facilities are

available for inpatient care of psychiatric illness.

It should be underscored that the intent of these actions is not to limit care where such inpatient care is medically necessary. Experience indicates, however, that hospital stays can be shortened, and also that discharge planning for the indigent patient is complex, often demanding the early assistance of several agencies.

The staff of the Medical Assistance Program is available to review these changes with hospital administrators and Utilization Review Committees. For further information please contact the Virginia State Department of Health.

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### **Burn Victims Suffer Loss of Zinc in Body**

Loss of appetite and distaste for food often are difficult problems in speeding recovery of patients from severe burns. The burn patients simply don't eat enough to meet the body's caloric needs. Their sense of taste is either completely gone, or else becomes distorted. Foods they once enjoyed now taste bad and they won't eat them.

In the February 19th issue of the *Journal of the American Medical Association*, a group of researchers from the Experimental Therapeutics Branch of the National Heart and Lung Institute, National Institutes of Health, Bethesda, Md., report that the loss of appetite and altered sense of taste is caused by heavy loss of one of the body's trace metals—zinc—in severe burn cases.

Loss of sense of taste is known medically as hypogeusia. Altered sense of taste in which

normal foods taste bad is called dysgeusia. Loss of appetite is known as anorexia.

The tests were conducted with 19 patients, all suffering from second- and third-degree burns. The patients were hospitalized in five different burn centers in the eastern United States. Each patient was tested for sense of taste in four qualities—salty, sweet, sour and bitter. Sixteen of the 19 suffered from hypogeusia. Patients were then tested for zinc content, and all were found to be below normal.

Next step in the research study will be to give extra zinc to burn patients, to determine whether it will correct the loss of appetite and distortion of taste that often makes treatment of severe burns much more difficult.

In the research group are M.D.s I. Kelman Cohen, Paul J. Schechter and Robert I. Henkin. Dr. Cohen is now with the Medical College of Virginia, Richmond.

# **Medicare—Part B . . . .**

CURTIS J. KELLY, JD

## **Prosthetic Devices**

Prosthetic devices (other than dental) which replace all or part of an internal body organ (including contiguous tissue), or replace all or part of the function of a permanently inoperative or malfunctioning internal body organ, and replacements or repairs of these devices, are covered when furnished on a physician's order. Supplies which are necessary for the effective use of prosthetic devices and equipment are also covered.

The following are some examples of items and equipment that are considered prosthetic devices. Cardiac pacemakers and maxillo-facial devices are covered; also, dialysis (hemodialysis or renal dialysis) equipment used in the treatment of renal failure is covered as a prosthetic device which replaces the function of a kidney.

The term "internal body organ" includes the lens of an eye or all or part of an ear or nose. Prostheses replacing the lens of an eye include post-surgical lenses customarily used during convalescence from eye surgery in which the lens of the eye was removed. In addition, permanent lenses are also covered when required by an individual lacking the organic lens of the eye because of surgical removal or congenital absence. Prosthetic lenses obtained on or after the date that an individual's coverage period under Part B begins are covered even though the surgical removal of the crystalline lens occurred before the commencement of coverage. Subsequent prosthetic lenses are covered when medically required because of a change in prescription. In addition, combinations of prosthetic lenses are covered when determined to be medically necessary by a

physician to restore essentially the vision provided by the crystalline lens of the eye. However, coverage does not extend to cataract sunglasses obtained in addition to the regular (untinted) prosthetic lenses, since the sunglasses duplicate the restoration of vision function performed by the regular prosthetic lenses.

Prosthetic lenses are not considered eyeglasses, which are specifically excluded from Medicare coverage. However, the general exclusion from coverage of refractive services regardless of the reason for them means that refractive services for the purpose of prescribing or providing prosthetic lenses are not covered.

Prosthetic devices can also be covered under other provisions of the Medicare law. If furnished under the appropriate circumstances, a prosthetic device is covered under Part B as a supply furnished incident to a physician's services. If furnished to an outpatient of an appropriate hospital, the same device constitutes an outpatient hospital service covered under Part B. If furnished to an inpatient of a participating provider of services, the device is covered as an inpatient service under Part A unless Part A benefits are exhausted or otherwise unavailable, in which case it would be covered as an inpatient ancillary service under Part B.

Dentures are excluded from coverage. However, when a denture or a portion thereof is an integral part (built-in) of a covered prosthesis (e.g., an obturator to fill an opening in the palate) it is covered as part of that prosthesis.



## Woman's Auxiliary . . . .

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## AMA-ERF—The Funds We Collected for Medical Education

We are proud to announce that as of February the State of Virginia has collected \$11,724.36, which includes direct contributions and collections from the following counties—Alexandria \$50, Danville \$100, Fairfax \$1.60, Lynchburg \$1,294.54, Northampton \$11.20,

Northern Neck \$135.90, Richmond \$.60, Roanoke \$405.15, Rockingham \$50.40, Southwestern \$115 and Wise County \$5.40.

This year it is more important than ever that you work to meet your per capita quota of \$10.00 per member. The government has decreased the funds for medical schools and it is our responsibility to step in and fill that gap.

Your county chairman will be selling stationery and beautiful placemats, and in the spring she will have an original Frankie Welsh scarf. Please think in terms of buying and urging all your friends to purchase through AMA-ERF for confirmation, birthdays and graduation. All purchases are 40% tax deductible and going to a good cause—the furtherance of our medical profession.

MRS. WILLIAM L. BEKENSTEIN  
*Chairman, AMA-ERF*

A pacemaker, as most people know, is an electrical device implanted in a heart patient to regulate his heart beat. Now, Canadian physicians have devised a pacemaker to straighten the spine. It is designed to, hopefully, correct the curved spine condition known as scoliosis, which affects mainly young girls. The spinal pacemaker sends out impulses which put the muscles controlling the vertebrae into intermittent spasms, forcing them into normal alignment, said Dr. Walter Bobeckho of the Hospital for Sick Children in Toronto. The device has been tested successfully in animals.

It has long been known that many of those parents who abuse their children were themselves abused and neglected. Could the friendship of a motherly type help such parents break the abuse syndrome? St. Luke's Hospital in New York City recently announced it would try to find out in a new program. Elderly women who volunteer are to visit troubled mothers and talk with them, acting as "friends" rather than official case workers. A similar project in Colorado reportedly had some success.

Add one more chapter to the story of the complex human body: A team of University of Chicago and Argonne National Laboratory scientists has discovered that the optic nerve, which transmits signals from the eye to the brain, contains *1.2 million* individual nerve fibers.

### Combing the Beaches

**B**ERTRAND RUSSELL recounts in one of his essays how a traveller in Italy offered a lira to the laziest of a group of twelve beggars lying at his feet. Eleven of them jumped up to explain the depth of their indolence so he gave it to the twelfth who stayed where he was and said nothing. Characteristically, the essay is entitled "In Praise of Idleness".

The idleness that Lord Russell praises is a productive idleness, although he does not censure those who sit and think. Psychologists know well the urge "to get away from it all" which is often the wish expressed by the busy physician. Recent articles in the lay press have described the increasing number of middle-aged men who have given up lucrative employment and returned to nature. The name of Paul Gauguin, (1848-1903) the tuberculous Impressionist painter, is usually cited as the example *par excellence* of this phenomenon. Gauguin, a stockbroker, deserted his wife and five children and took off for Tahiti, where he produced his colorful native paintings. Unfortunately, he also contracted syphilis which, with tuberculosis, was virtually an occupational disease of artists and writers during the last century. No doubt Gauguin's detractors rejoiced that he had been punished through the pox for his sins.

Doctors have, in recent times, become the envy of those who revere the cult of the "work ethic". Many of them toil sixty, even eighty, hours a week and revel in the martyrdom which comes with this burden. The consequent urge to get away is no doubt present but absolute desertion of family and calling is, happily, uncommon. There are, however, indications of a move back to the more gracious days when the squire and the doctor were the cultural nucleus of the village. Doctor Livesey must have spent many happy hours with Squire Trelawney, smoking a churchwarden over a bowl of punch, before he set off for Treasure Island with Long John Silver. Doctors again seem to be planning their time to allow more rest and relaxation; perhaps this trend echoes the general retreat from the Puritan view that the devil finds work for idle hands to do.

There is no arguing with the effect of automation on work hours. Unions and employers alike are accepting the idea of a four day work-week and the three day week is not far away. The distressing fact is that, instead of using the free time to acquire or extend outside interests, many of those released from labor are seeking additional work. W. H. Davies (1871-1940), the Welsh poet, spent five years in North America as what he called a "Super-Tramp". Begging his way back and forth across the continent, he lost a leg while riding the rods in his final journey east. It may have been this encounter with fate which prompted him to ask,

What is this life if, full of care,  
We have no time to stand and stare.



No time to stand beneath the boughs  
And stare as long as sheep or cows.

No time to see, when woods we pass,  
Where squirrels hide their nuts in grass.

No time to see, in broad daylight,  
Streams full of stars like skies at night.

No time to turn at Beauty's glance,  
And watch her feet, how they can dance.

No time to wait till her mouth can  
Enrich that smile her eyes began.

A poor life this if, full of care,  
We have no time to stand and stare.

Obviously today's physician doesn't do much standing and staring. His chief escape from his practice is to go to a medical convention which provides relief from both his patients and his income taxes.

When one reviews the varied talents among medical students it seems a shame that many of them put aside their avocation upon graduation. Too many doctors stagnate in what Hazlitt refers to as "the Ignorance of the Learned". Although no scientific study has demonstrated that a cultured physician has the edge on his colleagues, it would seem reasonable to expect him to be a better human being for having an interest beyond medicine, whatever it may be. It would also soften the blow of retirement felt by many doctors if they had some moonlight to dispel the gloom. After all, what could be sweeter than combing the beaches of a tropical isle under a full moon? Certainly not the daily grind of urban existence which ravel and shrivels men's souls—doctors' among them.

FRED J. SPENCER, M.D.

## "A New Criterion"—a Postscript

PROMPTED by a guest editorial in the August 1970 Virginia Medical Monthly, a note of warning appeared in the same issue entitled *A New Criterion for Possible Admission to UVa*. The point in question was an "Evaluation Program" prepared by medical faculty members in order that a crash program be given to a group of academically underprivileged candidates for possible admission to the medical school. The plan proposed to give an intensive summer course in some limited field of medicine with the hope that previously undiscovered talent would surface and prompt the Admissions Committee to bring this potential student into the first year class despite his bleak academic background.

The evangelistic zeal that permeated the guest editorial spoke well for the essential goodness of the committeemen who proposed the plan but it raised doubts in the mind of the writer as to what might happen to the University. It was pointed out that the program with "the primary objective"

to identify individuals who otherwise would have gone unrecognized by the Admissions Committee led inevitably to one of two unpleasant conclusions. Either unqualified students would be admitted to the medical school or the Admissions Committee had not done a very good job in recent years. The personnel of the committee made the latter seem unlikely.

It was pointed out that an earlier similar program at the University School of Law was not repeated the following year. In reviewing the original editorial the author is now aware a certain note of uneasiness may be sensed throughout the article, but the underlying sunny nature of the writer showed through in the final paragraph when he stated

"It is risky business at best, but now that this 'Evaluation Program' has been embarked upon, it is to be hoped that it will prove successful. Possibly the best ultimate solution would be to encourage the enrollees with the greatest aptitude to attend the medical schools with the largest classes and the highest academic standards. If this suggestion is followed, and the experiment should prove unsuccessful, relatively less harm would accrue to the strongest institutions than to the University. Perhaps some might even matriculate at Harvard."

Hardly had the August issue hit the street, as we in the trade like to call it, before the writer found he had stuck his pen in a veritable hornet's nest. Unfriendly letters came from members of the student body and faculty. The author was led to believe that he doubtless was also critical of all that was great and good in America. Fortunately the clamor gradually lessened; your editor bound up his wounds and bided his time.

At a meeting of the Advisory Committee of the University of Virginia Medical Alumni Association, held in Williamsburg last January, faculty members invited questions from the audience. One of the associate deans was asked about the salvage rate of the students who attended the crash course in the summer of 1970. The answer seemed rather vague—he thought some may have been admitted to other medical schools, but he did not mention Harvard. This prompted further questioning following the meeting and it was learned from disinterested persons the program was—to put it boldly—a flop.

The writer, though thoroughly human, is reporting the facts without any degree of rancor or satisfaction. Other noble experiments have come to grief in more rarefied echelons. True it is that a sizeable amount of money and goodness knows how many manpower hours of effort were diverted from more worthwhile activities, but the medical participants doubtless obtained a certain degree of pleasure, for altruism, like virtue, must bring its own reward.

The writer was a little relieved to learn that submarginal students were not admitted to the medical school with the attending temptation to give them subpar degrees after four years of residence. The University of Virginia is one of two institutions of higher learning in the nation that has never succumbed to bestowing an honorary degree. As long as this happy state continues every parchment with the seal of the University upon it is an earned one and it hangs a little higher by reason of it.

H.J.W.



## **Calendar of Events**

VIRGINIA SOCIETY OF ANESTHESIOLOGISTS—Spring meeting—Executive Motor Hotel—Richmond—April 14-15, 1973.

SPRING REFRESHER COURSE FOR SPECIALISTS—Sponsored by Gill Memorial Eye, Ear, Nose and Throat Hospital—Hotel Roanoke—Roanoke—April 15-18, 1973.

JOINT COMMISSION ON ACCREDITATION WORKSHOP—Sponsored by Virginia Hospital Association and The Medical Society of Virginia—Sheraton Inn, Military Circle—Norfolk—April 17, 1973.

PEDIATRIC ENDOCRINE POSTGRADUATE CONFERENCE—Sponsored by Department of Pediatrics, University of Virginia School of Medicine—Charlottesville—April 20-21, 1973.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND—Annual Meeting—Civic Center—Baltimore—April 25-27, 1973.

MEDICAL ETHICS—National Conference sponsored by Judicial Council of American Medical Association—Washington Hilton Hotel—Washington, D. C.—April 26-28, 1973.

RADIOPHARMACEUTICALS—Sponsored by Virginia Chapter, American College of Radiology—Boar's Head Inn—Charlottesville—April 28-29, 1973.

VIRGINIA SOCIETY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY—Annual Meeting—The Homestead—Hot Springs—May 2-5, 1973.

VISITING PROFESSOR IN INFECTIOUS DISEASES—Sponsored by Departments of Medicine, Microbiology, Pathology, Pediatrics and Division of Infectious Diseases of the Medical College of Virginia—Richmond—May 7-8, 1973.

PRECEPTORSHIP TEACHING WORKSHOP—University of Virginia Family Health Center and Howard Johnson's Motor Lodge—Charlottesville—May 18-19, 1973.

VIRGINIA HEART ASSOCIATION—Scientific Sessions for Physicians—Sheraton Motor Inn—Fredericksburg—May 22-24, 1973.

SPRING FORUM FOR CHILD PSYCHIATRY—Sponsored by Virginia Treatment Center for Children and Division of Child Psychiatry, Medical College of Virginia—Richmond—May 25, 1973.

ANNUAL ORTHOPEDIC ALUMNI SEMINAR—University of Virginia Medical School Auditorium—Charlottesville—May 31, 1973.

ANNUAL ORTHOPEDIC RESIDENTS PAPERS—Sponsored by Division of Orthopedic Surgery—Medical College of Virginia—Richmond—June 1, 1973.

AMERICAN MEDICAL ASSOCIATION—Annual Meeting—New York—June 23-28, 1973.

THE MEDICAL SOCIETY OF VIRGINIA—Annual Meeting—Holiday Inn/Scope—Norfolk—October 18-21, 1973.

\* \* \* \* \*

The Medical Society of Virginia maintains a registry of medical meetings and programs of interest to Virginia physicians. You can help by keeping us advised of any meetings scheduled in your area. This will not only help others avoid conflicts but also provide helpful information on opportunities for continuing education.

## New Members.

The following new members were received into The Medical Society of Virginia during the month of January:

George Henry Agate, M.D.,  
Highland Springs  
Nilda Rivera Ong Ante, M.D., Richmond  
Randolph Graham Bradshaw, M.D.,  
Radford  
Marino Malgarejo Cabiling, M.D.,  
Richmond  
Richard Burton Cover, M.D., Manassas  
Macimo Lopez Cuesta, M.D., Roanoke  
Louis Stephen Endsley, M.D., Richmond  
Robert Marvin Epstein, M.D.,  
Charlottesville  
John George Feminella, Jr., M.D.,  
Petersburg  
Ruth Föelsche, M.D., Yorktown  
Kenneth Edward Greer, M.D.,  
Charlottesville  
Victor Natividad Guerrero, M.D.,  
Manassas  
Everett Carter Lyon, Jr., M.D., Gainesville  
Joseph Mooney, M.D., Charlottesville  
Judy Alvela Sandique, M.D., Arlington  
Philip Siegel, M.D., Norfolk  
Charles E. Smith, M.D., Richmond

## County Society Officers.

*Patrick Henry Medical Society.* Dr. W. L. Robbins, Martinsville, is president for 1973. Dr. R. E. Rider, Martinsville, vice president; Dr. E. M. McDaniel, Jr., Martinsville, secretary-treasurer; and Dr. Geoffrey Curwen Fieldale, is past president.

Officers for the *Rockingham County Medical Society* for 1973 are: President, Dr. J. R. Ramser; vice-president, Dr. Robert McDonald; secretary, Dr. L. D. Burtner; and treasurer, Dr. R. C. Kohring. All are from Harrisonburg.

*Wise County Medical Society*—Dr. Fred Booth, Wise, is the new president; Dr. Charles Fuller, Wise, Dr. Kurtz Alderman, Clintwood, and Dr. Jane Toothman, Coeburn, are vice-presidents; Dr. J. M. Straughan, Wise, secre-

tary-treasurer; and Dr. Luis Salcedo, Norton, a new member of the Board of Censors.

## Dr. Wyndham B. Blanton, Jr.,

Richmond, has been named vice-president, Medical Relations, of Charter Medical Corporation, a hospital ownership company which operates Grace, Stuart Circle and Westbrook Hospitals in Richmond. He assumed his new position on March 1st.

Dr. Blanton has been in private practice for some twenty years. He is chairman of the Board of Visitors of Virginia Commonwealth University and its Medical College of Virginia.

## Medical Staff.

The 1973 medical staff officers of the National Orthopaedic and Rehabilitation Hospital, Arlington, are: Dr. Frederick W. Rook, Falls Church, has been re-elected chief of staff; Dr. Steven M. Levin, Alexandria, is vice chief of staff; Dr. Rolf Noer, Arlington, re-elected secretary; Dr. Thomas McP. Brown, Arlington, re-elected member at large; and Dr. Forrest M. Swisher, Alexandria, also re-elected member at large.

## New Departments at Medical College of Virginia.

The Board of Visitors of Virginia Commonwealth University has created two new departments at the Medical College of Virginia. The Department of Dermatology is headed by Dr. Kenneth Blaylock and Dr. Cary G. Suter has been named chairman of the Department of Neurology. Both of these departments previously existed as divisions in the Department of Medicine.

## Medical and Chirurgical Faculty of Maryland.

The 175th Annual Meeting of the Faculty will be held at the Baltimore Civic Center April 25-27. An outstanding scientific program has been arranged and subjects to be discussed include the following: Problems in Ischemic Heart Disease; Diseases of the Colon; Difficult and Current Problems in Treatment



**Who  
killed  
the  
wicked  
itch**

(and the infection)\*

**?**

**snow white**

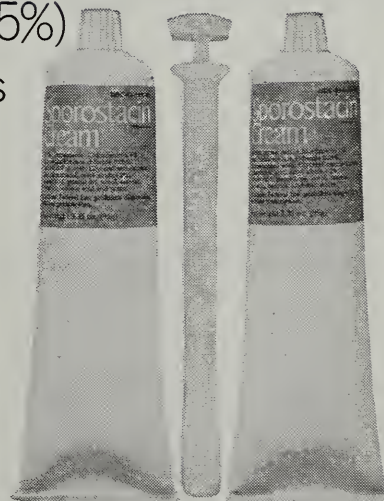
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\*

**Indication:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indication as follows:

"Probably" effective: For the treatment of vulvovaginal candidiasis.

Final classification of the less-than-effective indications requires further investigation.

**Contraindications:** None known. **Precautions:** Cases of sensitization and irritation have been reported. When noted the drug should be discontinued. **Dosage:** One applicatorful intravaginally twice daily for a period of 14 days. Course of therapy may be repeated if necessary.

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of Infectious Diseases; The Family Practice Approach to Management of Illness in the Academic Medical Setting; Recognition and Management of Common Ocular Problems; Why Treat Diabetes; Current Concepts in the Treatment of Cancer; Modern Trends in Geriatric Medicine; Sexuality and the Practice of Medicine; The Problems of Polyarthrititis; Lymphomas of the Skin; Post-Surgical Respiratory Insufficiency; Plastic Surgery; Problems of Smell in Medical Practice; Chronic Renal Failure Patient; Newborn Emergencies; Therapeutics of Congestive Heart Failure; and Lumbar Discogenic Disease.

The program is acceptable for thirteen credit hours by the American Academy of Family Physicians and the AMA Physician's Recognition Award.

A detailed program will be mailed upon request to the office at 1211 Cathedral Street, Baltimore, Maryland 21201.

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## **Obituary . . .**

### **Dr. George Vranian,**

Richmond, died February 22, having been in ill health for some time. He was fifty-four years of age. Dr. Vranian received his medical degree from the University of Virginia in 1943 and had practiced in Richmond for more than twenty years. He was a past president of the parish council of St. James Armenian Apostolic Church. Dr. Vranian had been a member of The Medical Society of Virginia since 1964.

His wife, a daughter and two sons survive.

### **Dr. Martin.**

On November 9, 1972, at the age of 39, Dr. Donald Lee Martin died at a local hospital ending two years of courageous battle with sarcoma.

Dr. Martin was born and raised in Louisville, Kentucky, finishing the public schools there. He

joined the Regular Army as an enlisted man and was stationed at Fort Jackson, South Carolina, where he learned to love this area through the eyes of a Richmond girl. When he left for duty in England, he soon took her back there with him as his bride.

When discharged from the Army, he settled his growing family here and entered the University of Richmond, transferring credits from Cambridge University and the University of Maryland, earned while in the Army. He entered the Medical College of Virginia's School of Medicine in 1958 and graduated in 1962. He took a year's internship at Stuart Circle Hospital and the residency in OB-GYN at the Medical College of Virginia, finishing in 1966 and began private practice in Richmond that year.

Don was appointed in 1966 and has continued to serve on the faculty at the Medical College of Virginia in the OB-GYN Department. He was Chief of the OB-GYN Division of Richmond Memorial Hospital at the time of his death and



# when manhood ebbs...

due to testicular deficiency



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fluoxymesterone, Upjohn

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**Indications in the male:** Primary indication in the male is replacement therapy. Prevents the development of atrophic changes in the accessory male sex organs following castration:

**1.** Primary eunuchoidism and eunuchism. **2.** Male climacteric symptoms when these are secondary to androgen deficiency. **3.** Those symptoms of panhypopituitarism related to hypogonadism. **4.** Impotence due to androgen deficiency. **5.** Delayed puberty, provided it has been definitely established as such, and it is not just a familial trait.

**In the female:** **1.** Prevention of postpartum breast manifestations of pain and engorgement. **2.** Palliation of androgen-responsive, advanced, inoperable female breast cancer in women who are more than 1, but less than 5 years post-menopausal or

who have been proven to have a hormone-dependent tumor, as shown by previous beneficial response to castration.

**Contraindications:** Carcinoma of the male breast. Carcinoma, known or suspected, of the prostate. Cardiac, hepatic or renal decompensation. Hypercalcemia. Liver function impairment. Prepubertal males. Pregnancy.

**Warnings:** Hypercalcemia may occur in immobilized patients, and in patients with breast cancer. In patients with cancer this may indicate progression of bony metastasis. If this occurs the drug should be discontinued. Watch female patients closely for signs of virilization. Some effects may not be reversible. Discontinue if cholestatic hepatitis with jaundice appears or liver tests become abnormal.

**Precautions:** Patients with cardiac, renal or hepatic derangement may retain sodium and water

thus forming edema. Priapism or excessive sexual stimulation, oligospermia, reduced ejaculatory volume, hypersensitivity and gynecomastia may occur. When any of these effects appear the androgen should be stopped.

**Adverse Reactions:** Acne. Decreased ejaculatory volume. Gynecomastia. Edema. Hypersensitivity, including skin manifestations and anaphylactoid reactions. Priapism. Hypercalcemia (especially in immobile patients and those with metastatic breast carcinoma). Virilization in females. Cholestatic jaundice.

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also on the Staff at Stuart Circle Hospital, St. Mary's Hospital, and Grace Hospital. He had done voluntary charitable service with St. Gerards Maternity Hospital, Sheltering Arms Hospital, and Evangeline Booth Home and Hospital of the Salvation Army.

Donald Martin was a diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Obstetrics and Gynecology, a member of the Richmond and the Virginia OB-GYN Societies, Richmond Academy of Medicine, and The Medical Society of Virginia among other professional societies. A quiet, devout man, he attended, taught, and was a deacon in his church, Ginter Park Presbyterian. He was an ardent flyer and a member of The Flying Physicians Association; interested in and a member of various chess, music, and fencing organizations as well as youth organizations such as the YMCA Supporters. He was proud of his devotion to his wife and together they were trying to raise their four children with love and dedication—that he was not allowed the time to see this accomplished was his major regret.

Donald Lee Martin spent most of his adult lifetime in the preparation for his profession. This time had few comforts—polio in childhood made some physical pursuits untenable; his family could not support his college plus professional education; and his adoption of two children soon after marriage would, for most, have ended any educational advancement. Don and his wife saw this education through for twelve years to his attainment of entry into practice—and they added two children of their own during that time. After entering practice, he continued to steadily expand his knowledge and grasp of the profession never feeling that he could let down—always feeling that a physician owed never less than this to those who entrusted themselves to his care. He was great at names because he worked at it. Patients were amazed at how he could recall their children's names, their husbands' names, where they worked, and what they did. Those he worked with, and all his contacts will remember

always this gift which made them feel that he cared. He was an interesting conversationalist—loved to talk—the breadth of his interests and knowledge amazed you. Books on myriad subjects were his constant joy, speed reading was a forte; he was ever onto a new subject, devouring whatever sources he could stir up. He entered each new pursuit—fencing, flying, chess, tennis—with terrific energy and drive. Don was honest, straight forward, opinionated, stubborn, loved to argue—a driver of himself, he expected near perfection from others and often said so—always to your face. Sham and hypocrisy he could not countenance; his tongue could be very cutting. Those who knew him well understood these things; they were not always faults. He thought that to practice medicine was the highest calling a man could have and loved every minute that he could work at it.

To those of us who worked closely with this man, he was about the bravest person that we ever met or heard of. One doctor said that his fight against his final illness was much more courageous than Lou Gehrig's.

Don entered the hospital to have a simple cyst removed from the ankle, but awoke to find it was synovial sarcoma, and he would have to have the leg amputated. As soon as the surgery was performed, he was up learning how to use the artificial limb and went right back to full-time work. He studied his disease, learned from books and personal correspondence with anyone anywhere that might know something of the cause, wrote a journal of his daily progress, took his various treatments, suffered the metastases and other setbacks without complaint, and made everyone associated in any way with his illness amazed at his incredible courage. He did not ever bemoan his lot but made every minute he had left as productive as he could. Don left behind many who feel better for having known him—this world is richer for his life.

ALLEN J. AWAD, M.D.

MAURICE S. VITSKY, M.D.

PHILIP L. MINOR, M.D., *Chairman*



*"The history of science, and in particular the history of medicine...is... the history of man's reactions to the truth, the history of the gradual revelation of truth, the history of the gradual liberation of our minds from darkness and prejudice."*

*—George Sarton, from "The History of Medicine Versus the History of Art"*

**Are there significant  
differences in bioavailability  
and clinical predictability  
among drug products?**

**Opinion**

**Results of a questionnaire to  
7,000 physicians:**

**44.6%**

**Agree there is a significant  
difference**

**24.9%**

**Believe there is no difference**

**30.5%**

**Had no opinion**

# Are there significant differences in bioavailability and clinical predictability among drug products?

## Teacher of Medicine

Alfred Gilman, Ph.D.  
Wm. S. Lasdon  
Professor & Chairman  
Department of  
Pharmacology  
Albert Einstein  
College of Medicine of  
Yeshiva University



I think that there can be a very great distinction between generic drugs and brand name drugs. And that applies to products of original research that have outlived their patent protection as well as to drugs that have long been in the public domain. Let me explain why.

### The Importance of the Manufacturing Environment

In terms of formulation, quality control, and the ability to reproduce an essentially identical product, batch after batch, I doubt that many firms are properly equipped to put out a product that is as carefully controlled as the product marketed by a pharmaceutical company with sophisticated research and high quality manufacturing facilities. For example, when a company comes out with its own preparation of a drug that has just lost its patent protection, there is no assurance that the drug it produces will be a therapeutic equivalent. The raw material could be identical and yet bioavailability might vary from complete unavailability to that which is equivalent to the original.

### It Isn't Enough to Meet USP and NF Standards

Meeting USP and NF standards is not enough to guarantee therapeutic equivalence. In certain instances, stricter standards must be applied. Right now, the New York Heart Association has a committee that is studying the problem of digoxin equivalent

lency. I am certain that they are going to recommend a bioavailability assay of a particular digoxin. Unless this is done, they will not recommend it for purchase or use in New York City hospitals. It represents too much of a hazard. They have gone so far as to recommend a batch-by-batch certification of bioavailability even though the company has been reproducing and marketing a digoxin product through the years.

### The Problem of Controlling Bioavailability of Generics

The FDA does not have the manpower to inspect the quality control capabilities of hundreds of houses specializing in generic products. And I don't think that the average pharmacist is knowledgeable or aware of the quality and bioavailability of the infinite numbers of generic preparations. A recommendation has been made that every time a generic house (or for that matter a large pharmaceutical company) markets an already existing drug for the first time, a modified new drug application should be submitted. The manufacturer would have to show that his compound is the therapeutic equivalent of the standard compound in use, assuming that the standard compound is one that has been available for an extended period—say 15 years. This would be one indication that the control of bioavailability is beginning to get the attention that it deserves.

### Clinical Predictability More Important Than Price

Although the question of price has been greatly exaggerated, it is true that patients can on occasion save money on generic drugs. But you are not going to dare attempt to save money if it jeopardizes the patient's health. Let's turn to the example that has become very prominent in recent years, that of the cardiac glycosides. They are probably the most toxic drugs we use with respect to the small difference between a maximally effective dose and a toxic dose. When you are dealing with drugs of this type, the first concern must be clinical predictability. At the risk of variations in bioavailability, it would be sheer folly to try to save the patient what might amount to maybe \$10 or \$20 a year. The physician cannot manage his patient unless he is sure that the drug he is prescribing has the same positive effect each time the prescription is renewed. This is especially significant when the patient takes the product, not for himself, but for the rest of his life.



## Maker of Medicine

C. J. Cavallito, Ph.D.  
Executive Vice President  
Ayerst Laboratories



minimize nonequivalence of drug components produced by different manufacturers. Arguments relate largely to the extent of product inequivalences. Experience over the past six years has uncovered a greater incidence of nonequivalence of products prepared by different manufacturers from generically equivalent substances than many had previously surmised.

### Newer Bioavailability Studies Reveal Differences

Bioavailability may be defined as a measure of the rate and amount of absorption of a drug substance from its administered dosage form. For several years pharmaceutical scientists have proposed that bioavailability data on presumably equivalent dosage forms provide the best measure of product equivalence—short of adequate clinical trial. In their continued search for shortcuts to the evaluation of product equivalence, medical and pharmaceutical scientists have increasingly relied upon bioavailability characteristics as reflected by blood levels of a drug after its administration to human subjects.

Leading manufacturers now conduct comparative bioavailability studies on their own product dosage forms after production process changes that would have been considered inconsequential a few years ago. This isn't surprising, since there are so many possible differences in production operations that the opportunities for inequiva-

lent generic and brand name products are numerous—even when the production process begins with identical chemical substances. Moreover, reputable manufacturers are striving to improve *in vitro* control measures, such as dissolution characteristics, which are being related more meaningfully to bioavailability reference data.

As a result of advances in scientific instrumentation and analytical methodology which permit measurements of small quantities of drug substances in the body, our abilities to detect differences in bioavailability and possible therapeutic nonequivalence have appreciably improved.

### Product Selection Based on Patient Response

Improved specifications and standards can better assure the equivalence of *drug substances*. Manufacturers, compendia and regulatory agencies can all play a part. However, it is the *drug product*, not the *drug substance*, that the physician, pharmacist, nurse and patient-customer utilize. How can these indi-

viduals make or influence specific product selections to minimize variations in therapeutic equivalence of multisource drugs? Patients' responses to a drug product provide a basis of experience to aid the physician in his selection of a particular product. The nurse and pharmacist can also help detect patient responses, but ultimate responsibility must remain with the physician.

### Reputation of Manufacturer as Basis for Product Selection

The physician, to assure that his patients receive quality health care, must rely upon the capabilities of the reputable pharmaceutical manufacturer who is equipped to develop, prepare and control a quality product of uniform, reliable therapeutic performance. Substitution with purportedly equivalent generic products that are only superficially evaluated by an imitator manufacturer can place the health of the patient secondary to factors of price or convenience for the provider.

## Opinion & Dialogue

What is your opinion, doctor?  
We would welcome your comments.



The Pharmaceutical Manufacturers Association  
1155 Fifteenth Street, N.W., Washington, D.C. 20005

Although equivalence of different preparations of a *drug substance* may be defined by certain physical, chemical or biological characteristics, identity is not always assured even though these characteristics may be described in compendia such as the USP, NF or defined by other specific source standards. Moreover, even with equivalent drug substances, similar pharmaceutical *products* can be produced by different manufacturers such that these products are biologically or therapeutically inequivalent.

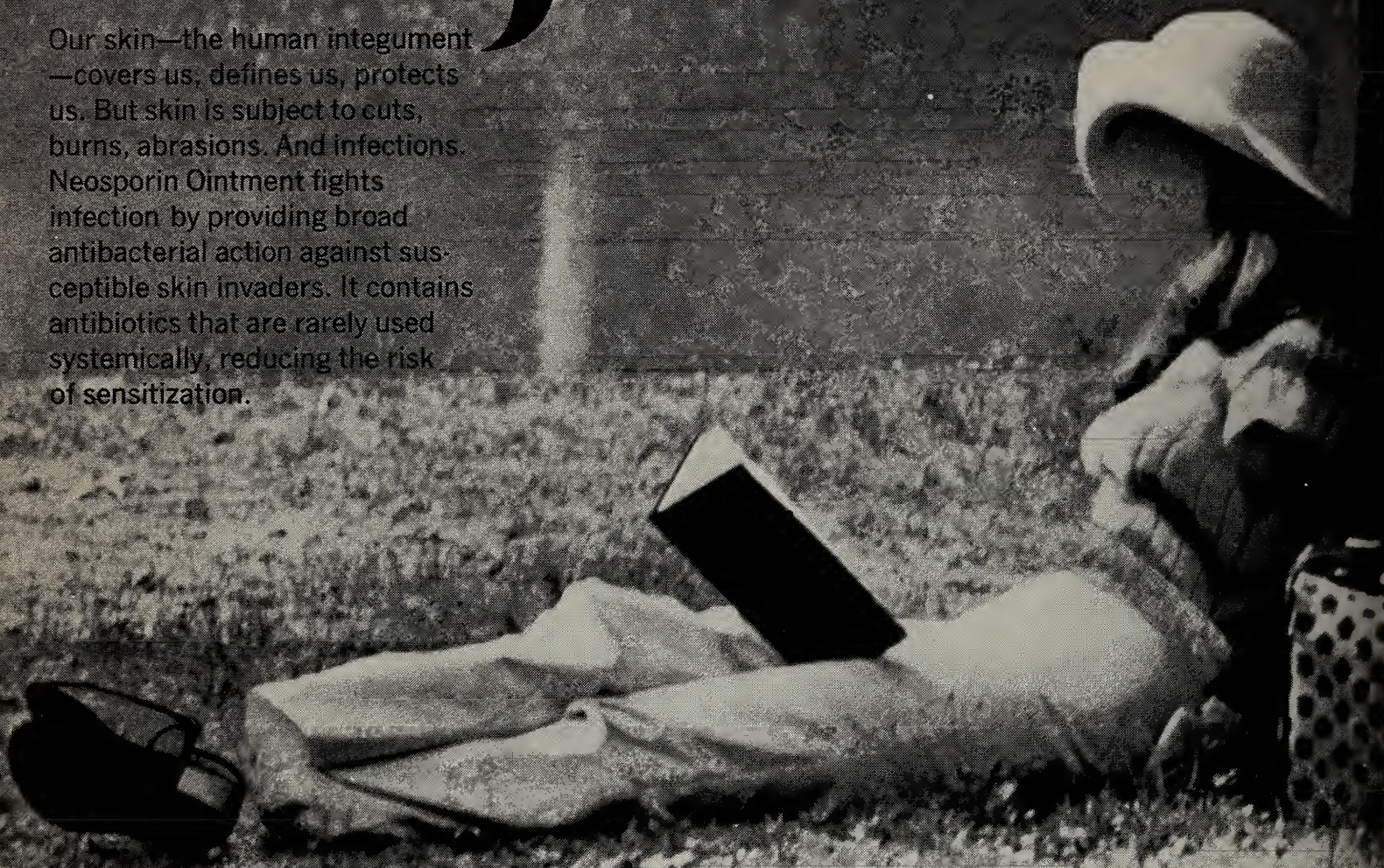
### A Growing Awareness of Potential for Nonequivalence

As experience increases with drug substances derived from different sources and under different conditions, it should be possible to establish specifications in sufficient detail to minimize the potential for their nonequivalence. However, there is general agreement that product therapeutic equivalence would still not be assured even if one could



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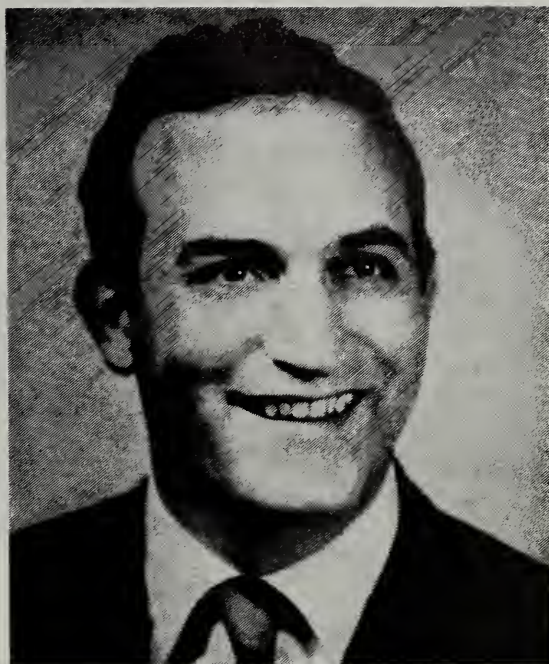
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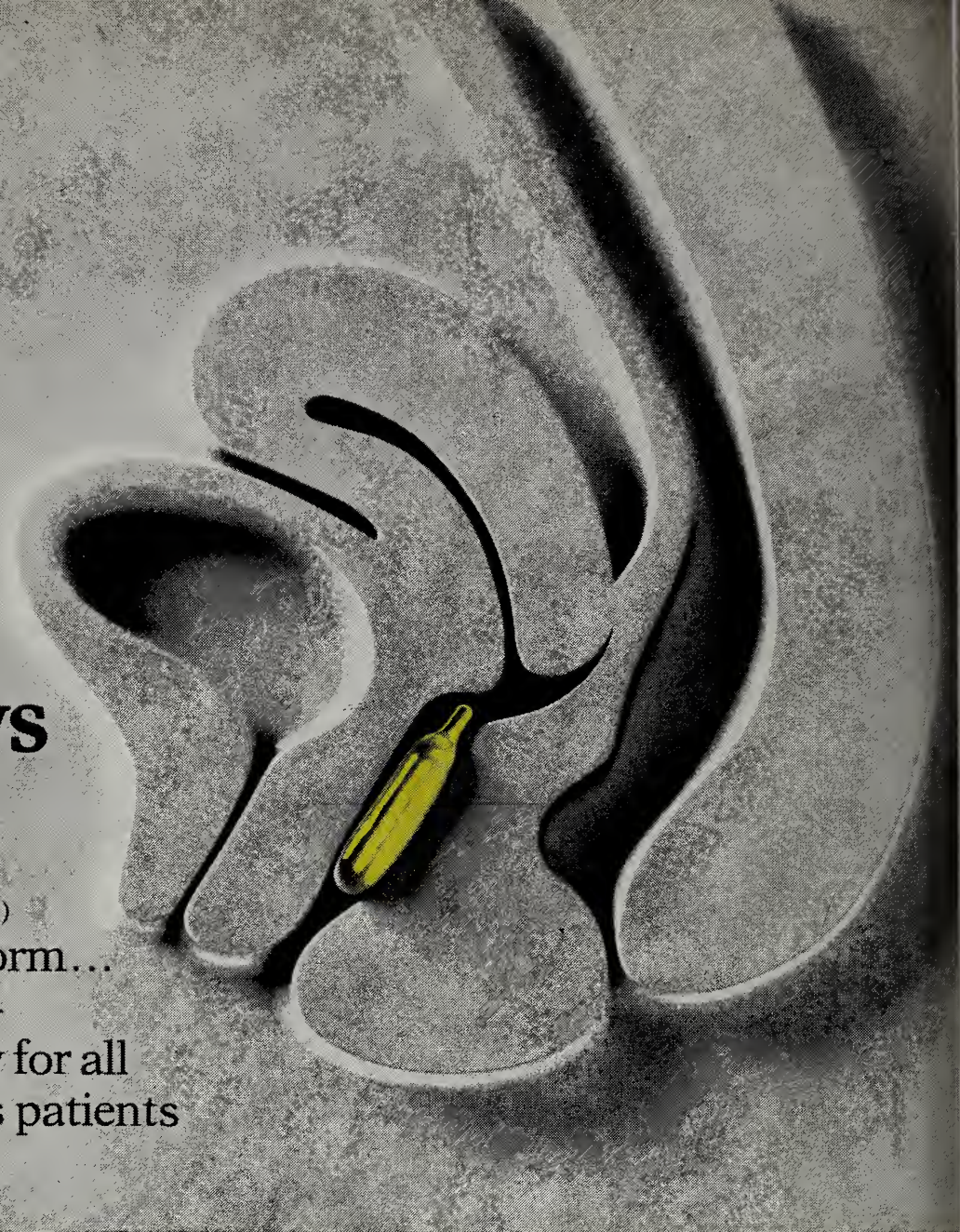
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### Guest Editorial . . . .

#### Tay-Sachs Disease—a Preventable Disorder

**T**AY-SACHS DISEASE is an inherited lethal disorder primarily affecting the central nervous system which occurs approximately one hundred times more frequently in Askenazic Jewish children as compared to Gentiles and Sephardic Jews. Approximately ten years ago it was shown that the disorder is due to the deficient activity of an enzyme, hexosaminidase A, which catabolizes a normally occurring brain ganglioside. The accumulation of this sphingolipid in the central nervous system leads to the gradual deterioration and inevitable demise of an affected infant who had previously developed normally for the first six to eight months of life. Unfortunately, no cure is available or imminent.

During the past five years an accurate procedure for the quantitation of hexosaminidase A activity in serum has been developed which permits the identification of those who are carriers of this autosomal recessive disorder. Because of its marked predominance in Ashkenazi Jews (those Jews of European and Russian ancestry and who represent 90% of United States Jews), it has therefore become feasible and advisable to utilize this test to screen this population for the carrier state. Carrier identification is valuable for two reasons: 1. It allows identification of couples in the childbearing age who may *both* have the abnormal gene and therefore are at a 1:4 risk for having a Tay-Sachs infant, and 2. it serves to alert relatives of carriers of their very high risk for also being carriers. A screening program conducted by the John F. Kennedy Institute at Johns Hopkins University School of Medicine in the Baltimore-Washington area over the last three years has tested over 10,000 Jews and found a carrier incidence of 1:30.

Two alternatives exist when a couple are both found to be carriers: 1. limitation of family size or 2. therapeutic termination of an involved fetus—amniocentesis in the fourth month of pregnancy allows culturing of sloughed fetal skin cells and an accurate assessment of the enzyme status of the fetus.

The M.C.V.-Virginia State Health Department Tay-Sachs Screening Program has been in operation since last July; in this program, the enzyme, hexosaminidase A is assayed in the serum. After an intensive educational and publicity effort approximately 1000 Jews have already voluntarily availed

themselves of this service, and the carrier rate of 1:30 previously found for the Baltimore-Washington area is prevailing here also. Each carrier is carefully counseled regarding the significance of the finding and the advisability for carrier testing of their relatives. If all of the adult Jewish population in greater Richmond were screened (approximately 5000) about 130 carriers (four of whom would be married to carriers) would be detected. Additionally if every relative of a carrier were screened, approximately 600 additional carriers would be detected, 120 of whom would be in the child-bearing age. Of these latter 120, four (1 in 30) would be married to carriers and at risk for having a Tay-Sachs infant. It has been estimated that the yearly cost for the care of a Tay-Sachs infant (who usually lives for 2-3 years) is \$20,000. The prevention of the birth of only one Tay-Sachs infant will justify the cost of this program. Prevention also spares the parents and relatives of the indescribable emotional anguish wrought by this slowly progressive degenerative disorder.

Because special handling of the blood is necessary to assure precise enzyme determinations, blood specimens have only been drawn on designated screening dates at a Jewish community center or on appointment at the Program's testing laboratory at M.C.V. By the time this editorial appears the last of this series of testing will have taken place on March 25. Thereafter it is hoped that all newly married Jewish couples will be tested on a continuing basis, and relatives of carriers (independent of the area of the country in which they live) will be evaluated. It is also anticipated that this service will be available to other localities in the Southeast who wish to conduct a similar screening program.

Only approximately eight other cities have offered or plan soon to offer this service, but the ability to prevent the birth of Tay-Sachs infants by carrier detection makes it imperative that all Ashkenazi Jews have the opportunity to be tested. No infant with Tay-Sachs need be born again. What is now needed is an awareness and understanding by the medical and lay communities regarding the significance of Tay-Sachs carrier detection programs.

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# Failure to Demonstrate a Hemolytic Effect of Phototherapy on Erythrocytes

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**Hematocrit, erythrocyte content of reduced glutathione (GSH), and erythrocyte autohemolysis were studied in low birth weight control and light-treated newborn infants in order to determine the effect of therapeutic levels of phototherapy on erythrocytes.**

**T**HE THERAPEUTIC USE OF PHOTOTHERAPY for treatment of hyperbilirubinemia in neonates has gained increasing popularity since 1968. To date there seems to be little doubt that phototherapy is indeed effective in reducing neonatal hyperbilirubinemia.<sup>1</sup> Light is thought to photo-oxidize bilirubin to biliverdin and into other ill-defined products. From the time of its first use many questions have been raised concerning the possible detrimental effects of phototherapy upon the neonate. Two preliminary reports suggested that phototherapy might be injurious to the neonate.<sup>2,3</sup> In 1971, Kopelman and associates presented evidence which suggested an increased rate of hemolysis of fetal erythrocytes exposed to light, particularly in the presence of bilirubin.<sup>2</sup> Changes were demon-

strable within 30 minutes of blue light irradiation. Blackburn and associates have also shown that exposure of erythrocytes in vitro to 2000 footcandles of light decreased erythrocyte reduced-glutathione (GSH) levels only slightly, but significantly increased the rate of hemolysis and potassium leakage from the cells. The action of light on erythrocytes was enhanced in the presence of bilirubin (10 to 20 mg/100 ml). Their subsequent study showed, however, that low birth weight infants exposed to 300 footcandles of cool white light exhibited hematocrit, hemoglobin, and GSH values comparable to that of the control group receiving no phototherapy during the first six days of life.<sup>4</sup> Our objective was to determine the effect of therapeutic levels of blue light (200 footcandles) at birth on fetal erythrocytes and on erythrocytes of infants at seven to nine weeks of age.

## Methods and Materials

Thirty-three low birth weight infants (less than 2500 grams), less than 24 hours of age, were randomly assigned to one of two treatment groups: Group 1 (18 infants) was exposed to blue fluorescent light (Eight, 20 watt lamps, F20T12/B, Westinghouse, Bloomfield, N.J.) at 200 footcandles, 12 hours daily for four days; and Group 2 (15 infants) received no therapy. Excluded were infants with positive Coomb's tests, sepsis, or ABO incompatibility. All infants were fed Similac with Iron.

Hematocrits, determined on capillary blood using an Adams Micro-Hematocrit Centrifuge (Clay Adams, Inc., New York, N. Y.), were obtained on day five in all infants, and at seven

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to nine weeks of age in 12 of 15 control infants and 10 of 18 light-treated infants. Some infants in each group did not keep their follow-up appointments.

Erythrocyte GSH levels and autohemolysis were studied at five days of age in five light-

## Results

There was no significant difference ( $p > 0.05$ ) between the light-treated and control infants' hematocrits at five days and at seven to nine weeks of age (Table 1), or in erythrocyte GSH concentrations or degree of auto-

TABLE 1  
INFLUENCE OF PHOTOTHERAPY AT BIRTH ON HEMATOCRIT

	Control	Groups Phototherapy	p
Number of infants.....	15	18	
Birth weight, Kg (mean $\pm$ S.D.).....	1.82 $\pm$ 0.09	1.91 $\pm$ 0.07	>0.05
Hematocrit, % (mean $\pm$ S.D.)			
at 5 days.....	50.7 $\pm$ 4.5	51.0 $\pm$ 5.4	>0.05
at 7-9 weeks.....	30.6 $\pm$ 2.9*	29.8 $\pm$ 2.0†	>0.05

\*12 infants.

†10 infants.

All infants were fed Similac with Iron.

treated infants (1572-1990 grams), and nine infants (1730-1990 grams) who were not subjected to phototherapy. Approximately 6 ml of blood were collected by aseptic femoral

hemolysis (Table 2). Furthermore, exposure of adult erythrocytes to 200 footcandles of blue light in the presence of high concentrations of bilirubin did not reduce the level of

TABLE 2  
EFFECT OF PHOTOTHERAPY ON FETAL ERYTHROCYTES IN VIVO

RBC Analysis	Control	Groups Phototherapy	p
GSH level, mg% (mean $\pm$ S.D.).....	73.4 $\pm$ 12.6	77.3 $\pm$ 13.7	>.05
Autohemolysis, % (mean $\pm$ S.D.).....	1.4 $\pm$ 0.6	1.4 $\pm$ 0.3	>.05

GSH-Reduced glutathione.

venipuncture from each infant for these determinations. GSH levels were measured by the method of Beutler,<sup>5</sup> and autohemolysis was determined after 48 hours of erythrocyte incubation at 37°C by the method of Dacie.<sup>6</sup>

Paired samples of adult blood containing 15 mg/100 ml or 25 mg/100 ml of indirect-reacting bilirubin (Fisher Scientific Co., Pittsburgh, Pa.) were prepared in the dark and then exposed for two hours to 200 footcandles of light, at a distance of 40 cm from the light source (lamp-mattress distance) while on a test tube rocker, or stored in the dark and rocked for two hours. Erythrocyte GSH levels and autohemolysis were then determined.

GSH in these cells, nor did it enhance autohemolysis (Table 3).

The maximum mean daily serum bilirubin concentration ( $\pm$  S.E.) in the control group was 8.7  $\pm$  0.9 mg/100 ml, and in the phototherapy group it was 6.3  $\pm$  0.5 mg/100 ml ( $p < 0.05$ ); both peaks occurred on the fourth day of life.

## Discussion

Our findings suggest that phototherapy with blue fluorescent light at levels of 200 footcandles has no apparent immediate effect on the hematocrits, erythrocyte GSH concentrations, and degree of autohemolysis in low birth weight newborn infants. The finding of



TABLE 3  
EFFECT OF BLUE LIGHT ON BILIRUBIN-TREATED ADULT ERYTHROCYTES IN VITRO

Groups	Serum Bilirubin Concentration			
	15 mg%		25 mg%	
	RBC GSH level, mg%	RBC Autohemo- lysis%	RBC GSH level, mg%	RBC Autohemo- lysis, %
Control (no light).....	62.0*	2.2 (2.3,2.1)	60.5 (57.0,64.0)	0.54 (0.96,0.52)
Light.....	74.1 (70.5,77.6)	2.0 (1.7,2.3)	69.1 (68.0,70.1)	0.76 (0.74,0.78)

\*Single determination.  
GSH-Reduced glutathione.

“normal” hematocrit levels in light-treated infants at seven to nine weeks of age suggests that there is also no clinically apparent delayed effect on the erythrocyte. Furthermore, the in vitro studies failed to demonstrate that phototherapy increases erythrocyte susceptibility to spontaneous lysis, or that high concentrations of indirect-reacting bilirubin enhance hemolysis of adult erythrocytes exposed to light.

#### ACKNOWLEDGMENTS

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# Prenatal Detection of Mental Retardation

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**It is sometimes possible to accurately predict mental retardation as well as some other congenital anomalies by the 20th week of pregnancy. This is especially true in that group of fetuses with chromosome anomalies.**

**T**HE BIRTH OF A CHILD with severe mental retardation or irremediable deformities is a tragedy for parents and a financial burden for society. It is estimated that 3% of persons in the United States are mentally defective, an incidence which underscores the importance of searching out etiologies, preventions, and cures of those congenital diseases which cause mental retardation. Two distinct groups of disorders associated with mental retardation may be diagnosed in-utero by evaluation of fetal cells obtained by transabdominal amniocentesis. These are: several inborn metabolic errors and most common chromosome diseases. As yet, antenatal diagnosis of the metabolic diseases is available in few medical centers and is appropriate only to selected populations, primarily women who have already delivered an afflicted child. Much remains to be done to improve reliability, decrease expense and increase the number of inborn errors of metabolism which can be detected in-utero.

Fetuses with chromosome anomalies are the largest group of patients who can be determined before birth to face life-long mental retardation. Fetal cells are present in amniotic

fluid. Their chromosomes accurately indicate the karyotype present throughout life. Chromosome anomalies which may occur as artefacts of culture usually can be recognized and accurate assessment of fetal chromosome constitution determined.

Although chromosome analysis of amniotic fluid is expensive and not widely available, it is an important part of good prenatal care for several groups of patients. It is but one portion of adequate genetic counselling and usually is decided upon and performed in the same institution where facilities for appropriate cell culture and cytogenetic study exist. However, fluid obtained elsewhere may be shipped under sterile condition and cultured successfully, as is the case with heparinized blood specimens for leukocyte chromosome culture. No absolute indications for diagnostic amniocentesis exist in chromosome disorders and each patient merits individual consideration. Proper candidates include<sup>1</sup> women known to carry a chromosome deletion or translocation, those who previously have produced a child with chromosome error or sex-linked disease, women in older childbearing years, and women with several spontaneous abortions or malformed children if no other cause can be found (the products of up to 40% of spontaneous abortions are cytogenetically abnormal). Initial experiences with antenatal diagnosis at the University of Virginia Chromosome Research Laboratory form the basis of this paper.

## Method

Transabdominal amniocentesis by skilled hands is safe for both mother and infant. It is best performed during the 16th or 17th week of gestation when 15 to 20 cc. of fluid can be withdrawn.<sup>2</sup> The fluid contains cells derived from the fetus which lend themselves to successful culture and there is opportunity for intervention at the 20th week of pregnancy

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From the Chromosome Research Laboratory, Department of Neurology, University of Virginia School of Medicine.



if therapeutic abortion is decided upon. Four or more weeks are usually required for cell culture.

Sterile amniotic fluid is centrifuged for fifteen minutes at 250 RPM. After removal of supernatant, cells are suspended in culture medium and incubated undisturbed for ten days. Thereafter, media is changed twice weekly until small colonies of cell growth are visible, when they are subcultured. Subculture consists of loosening cells with trypsin so the original colony may be divided into two new flasks. Several subcultures are mandatory when a female karyotype is found, for occasionally a few maternal cells survive initial culture but do not remain in subcultures.<sup>3</sup> When cell quantity is sufficient, colchicine is added to arrest division at metaphase and cells are isolated, fixed and stained with Giemsa for microscopic examination. The chromosomes in twenty metaphase spreads are counted whenever possible and at least five cells analyzed completely. If the culture is suboptimal, more cells must be counted and analyzed. Photographs are made and karyotypes prepared according to Denver and Chicago conventions. None of 28 amniotic fluid cell cultures done to date in this laboratory has had a chromosome error. All but two have accurately predicted fetal sex.

### Cytogenetic Evidence of Mental Retardation

The association between chromosome defects and mental retardation was first established by investigators using peripheral leukocytes or fibroblasts as cells for culture. During the past ten years, 365 of 2,000 cultures in this laboratory were abnormal. The clinical status of these patients is similar to that found by other investigators:<sup>1,4-7</sup> all major autosomal anomalies are accompanied by mental retardation and mental subnormality is frequent in sex chromosome disorders. These are tabulated in Figure 1.

### Mongolism

Mongolism, or Down's syndrome, is the most frequent chromosome disorder associated

with mental retardation which can be diagnosed in-utero. It illustrates many of the problems encountered in selecting patients for amniocentesis. Mongolism, a syndrome of

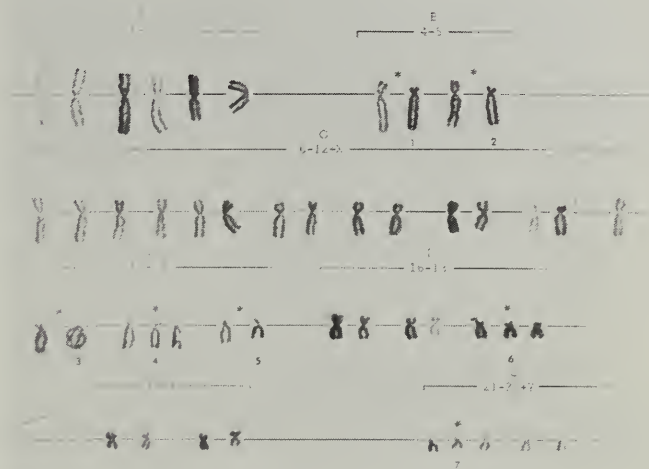


Fig. 1. Seven chromosome anomalies associated with mental retardation are identified by asterisks. This is an artificial karyotype for illustration: 1—short-arm 4 deletion; 2—short-arm 5 deletion; 3—ring 13-15 chromosome; 4—trisomy 13-15; 5—translocation 15/21; 6—trisomy 18; 7—trisomy 21.

multiple anomalies, occurs in approximately one of every 600 live births in the United States and accounts for approximately 10% of all institutionalized defectives. Death in infancy is frequent and usually attributable to cardiac anomalies, but many mongoloid children live into the fifth and sixth decade. Surviving infants have essentially the same death rate as other members of the general population through age 40 and death in childhood is by no means expected. Mental retardation is constant, few mongols achieve independence and essentially all are life-long wards of family or institution. As in all chromosome disorders, the incidence of mongolism increases with advancing maternal age. The estimated risk of bearing a mongol child<sup>5</sup> is about 1:2000 for women less than 20 years of age compared to 1:46 at 45 years of age and older. The cells of patients with mongolism regularly possess extra genetic material. In the offspring of both older and younger mothers, this is usually an additional distinct chromosome 21 (trisomy 21). Four to six percent of patients with Down's syndrome have the extra chromosome

attached (translocated) onto another acrocentric chromosome, either 15/21 or 21/21 translocation. This is the chromosome defect most likely to be transmitted from parent to child, but less than 2% of all mongols inherit a translocation chromosome from a parent. Twenty-one trisomy is usually a sporadic event, but there is slightly increased risk of mongolism to a child born into a sibship already containing a 21 trisomic mongol.<sup>6</sup> Amniocentesis is helpful in management of every mother who has borne a mongol child and should be mandatory if she is known to have translocation herself.

### **Other Autosomal Diseases**

Two other autosomal trisomies are associated with severe mental retardation, 13-15 trisomy and 18 trisomy. Anomalies of many organs are present. In 13-15 trisomy, grotesque facial deformity is frequent and many patients have a structural brain anomaly. Mental subnormality is also present in the two most common autosomal deletion syndromes, where there is loss of a part of the short arms of chromosome 4 or 5.

### **Sex-Chromosome Disorders**

Antenatal prediction of mental retardation is not possible in disorders of the X and Y chromosome. The two most frequent syndromes, 45(XO) Turner's syndrome and 47(XXY) Klinefelter's syndrome, are associated with low intelligence in approximately 12% and 25% of patients respectively. Mental retardation is more frequent in multiple-X and multiple-Y patients,<sup>7</sup> but more information is needed to establish the frequency and severity of intellectual defect.

### **Advantages of Amniocentesis Cytogenetics**

There currently is no cure for cytogenetic errors, yet antenatal study can be very helpful. Assurance that fetal chromosomes are normal does much to relieve anxiety in parents of a cytogenetically-defective retarded child, especially when the parent himself carries a

translocation chromosome and is identified as the person contributing it to the child. In other instances, a chromosome defect may be found which is known to be associated with such disastrous consequences (multiple congenital anomalies and extreme mental subnormality) the fetus must be considered for therapeutic abortion. These defects are 18 trisomy, 13-15 trisomy, and B-short arm deletions (4p- and 5p-). Many other chromosome errors, D-rings and other deletion syndromes, will probably be added as more patients are found. Many advocate abortion for mongolism, while others denounce it. Proper antenatal management is complex, for intelligence approaching low normal has been observed in a few children with mongolism and many families will attest the worth of a child or sibling with Down's syndrome in their midst. An additional use of prenatal chromosome study is determination of fetal sex where there is family history of severe X-linked recessive disease such as pseudohypertrophic muscular dystrophy or hemophilia.

### **Problems**

The presence of normal fetal chromosomes is no guarantee of a normal child. Antenatal cytogenetic diagnosis has many limitations, and parents and other interested persons must be informed of them. Minor chromosome anomalies may be missed even though recent technical advances,<sup>8</sup> autoradiography, quinacrine fluorescence and Giemsa banding, permit great accuracy. Occasional patients are mosaics: persons with cells of two or more different chromosome patterns. Prediction of their clinical status is risky. For example, mosaic patients having both normal and 21 trisomy cells vary from being normal to severely mongoloid.<sup>1</sup>

Another problem arises if a definite chromosome error is identified whose relationship to mental retardation or congenital deformity is unknown or misunderstood. Abortion should not be considered for those chromosome defects whose significance is in doubt. An example is illustrated in figure 2. A child



with mental retardation was found to have loss of G long-arm chromosome material. This defect, often called a Ch or Christchurch chro-

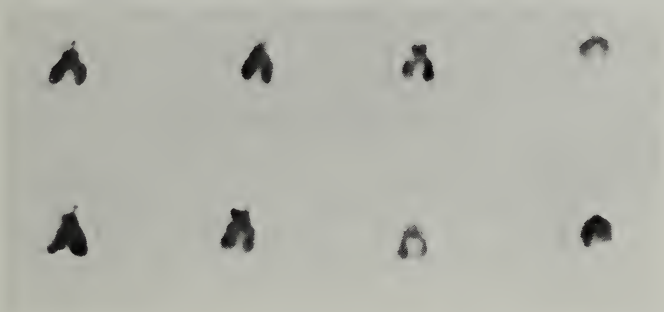


Fig. 2. Chromosomes 21-22 for two cells. The Ch chromosome [46 (XX) Gq-] is on the right.

mosome, was not definitely related to her mental subnormality, for it was present in her unaffected father, two uncles and three siblings. (Figure 3)

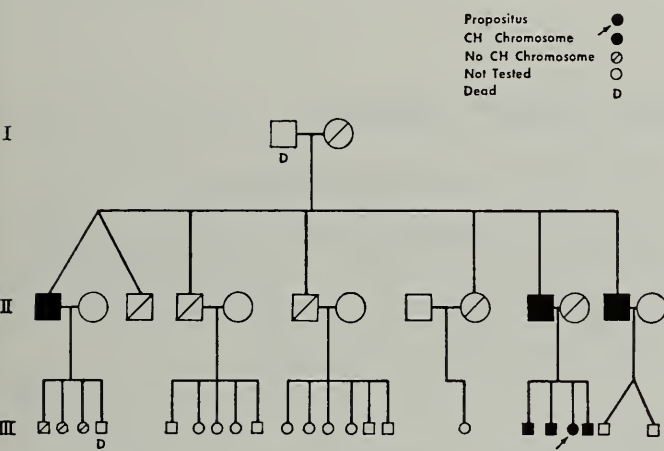


Fig. 3. Pedigree of Family F. Seven members of two generations have an abnormal 21-22 chromosome. They are clinically alike. Only the propositus is mentally retarded.

Amniocentesis should occur early enough in pregnancy to permit consideration of therapeutic abortion. This is often a problem in older women. They are most likely to bear cytogenetically defective children, but most older mothers in many clinics seek prenatal care late in pregnancy when abortion is difficult.

When sex-linked recessive disease is present in a sibling, the determination of fetal sex poses another ethical problem for patient and physician. A male offspring with a disease such as severe X-linked hemophilia has a 50%

chance of being ill, a disadvantage to his family and little opportunity to produce children. A female has the same chance of being a carrier who will be well herself but able to contribute her defective X chromosome to future generations. There is a question as to whom to abort, especially since 50% of either sex will be normal. What is needed are methods to determine fetal carriers of X-linked disorders.

### Conclusion

Antenatal cytogenetic diagnosis is at an early stage of development with limited usefulness, but it has the prospect of development into a major asset in the future. Physicians who deal with mentally defective children and their parents must inform themselves of the uses of prenatal diagnosis and be prepared to counsel parents as the general public becomes aware of these procedures. In an instance of fetal chromosome abnormality, the physician must not arrogantly impose his own ethical concepts onto parents, but rather sympathetically share his professional expertise in as impartial and honest manner as possible. When the parents are well informed, their best judgment should strongly influence the physician.

No formula exists to determine when to interrupt pregnancy. Therapeutic abortion falls pitifully short of medicine's goal to provide good health to everyone possible and it is attended by carefully considered and conflicting viewpoints. Abortion seems clearly indicated for chromosome defects such as 13-15 or 18 trisomy, where deformity and retardation are so severe as to render the victim essentially subhuman. Parents, who do so wish it, deserve to be spared the agony of such offspring. In other instances, antenatal diagnosis may predict less severe life-long mental retardation. Parents, physician, clergyman and lawyer must assess this information to reach a right decision. The complicated questions with which they strive emphasize the importance of finding basic causes and means to prevent the disastrous and socially important chromosome abnormalities.

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### American Children Among World's Biggest

American children rank among the world's biggest. That includes the poor kids, too. Data from the U. S. Public Health Service, reported in *AMA Update*, a publication of the American Medical Association, shows that American children, both white and black, rank among the biggest in the world.

White American children are in the top group—both in height and weight—as compared to European children, and black American youngsters (at 8 years of age) appear to be taller than their tallest African counterparts.

There has been a steady and regular increase in height and weight of American children over the past 90 years. Children now average 10 per cent taller and 15 to 30 per cent heavier.

\* At age 6, American boys are slightly taller and heavier than the girls. But by age 11, the girls are larger. That's generally true both

for white and black youngsters.

\* Boys of both races are essentially the same height throughout the 6-11 age range, but white boys tend to be slightly heavier than their black peers at every age.

\* Black girls, on the other hand, are taller than white girls their age throughout this span. Although they weigh slightly less than age 11, black girls then become taller and heavier than white girls.

\* Between big cities and small farming communities, there is no significant difference of height or weight among children of otherwise similar socioeconomic backgrounds.

The survey found that the socioeconomic status of the parents seems to have a direct bearing on the height and weight of the children. The higher the family income, the taller and heavier the children will tend to be. Likewise, the better educated the parents are, the taller and heavier are the children.



# Total Hip Replacement

## Its Application to Various Hip Disorders

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**This study involved 49 hips in 38 patients with various disabling hip disorders. Good results have been obtained with the operation described.**

THE PURPOSE OF THIS PAPER is to describe the results of the procedure introduced originally by Dr. John Charnley, utilizing a metallic stem prosthesis inserted into the femoral shaft and a polyethylene socket for the acetabulum. Both portions of the new hip joint are properly secured into their respective locations utilizing an acrylic filler which will be referred to chemically as Polymethyl Methacrylate.

The goals of reconstructive surgery are:

1. Improved motion
2. Relative freedom from pain
3. Stability of the hip and a relatively normal gait
4. Early post-operative weight bearing

Various type sockets have been used for placement into the acetabulum. A metallic acetabular socket was used originally, but was found to cause a vaulting and less desirable gait than the plastic socket now being used. This probably is explained by the imperfect lubrication of the metallic joint and higher coefficient of friction. It has been felt by

Charnley that over a longer period of time the conditions for film lubrication in the metal to metal joint probably becomes less favorable as the diameter of the femoral head is reduced due to wear. Teflon has also been used in the past, but it fragmented.

High molecular weight Polyethylene is now being used in the Charnley and Charnley Mueller acetabular sockets. This has been found to have little fragmentation and wear over a long period of time.

Methyl Methacrylate, a self curing acrylic cement, was first synthesized in 1902. It is composed of carbon, hydrogen and oxygen atoms and it is a volatile liquid which slowly polymerises into a solid resin with the addition of a chemical initiator. No allergic reactions to this compound have been seen. Tests carried out over an eighteen year period shows that the material is well tolerated in human tissue. Compressive and tensile strength were approximately 75% that of normal cancellous bone. Although a place remains for osteotomy of the femur, cup arthroplasty, arthrodesis of the hip, and resection of the femoral head and neck (Girdlestone Procedure), the low friction arthroplasty of the hip, as described by Charnley, allows us to rehabilitate patients previously considered inoperable.

In this study, the patient received 500 mgs. of Kantrex intramuscularly with pre-operative medications and then receives two grams of Staphcillin or two grams of Keflin intravenously during surgery. Patients also receive

Cortisone Acetate when they have been previously on exogenous steroids.

Post-operatively the patients received five days of antibiotics prophylactically including one gram of Staphcillin intravenously q. four hours and 500 mgs. of Kantrex IM q. twelve hours. When Cortisone Acetate is given it is gradually tapered post-operatively back to the maintenance dose of steroids.

The patients are allowed to sit in a chair on the second post-operative day. A program of muscle setting and breathing exercises are started on the first post-operative day. When sitting in a chair or on the edge of the bed, a pillow is maintained between the thighs to prevent adduction. An attempt is also made to prevent excessive flexion or external rotation. When sitting in a chair, the feet are not allowed to be more than four to six inches off the ground. Traction is discontinued after 48 to 72 hours. Range of motion exercises of an active assistive nature are started on the fourth or fifth post-operative day. On the fifth or sixth post-operative day, the patient is started on a tilt table. The patient then begins to ambulate on a non-weight bearing status on the involved leg usually at about the seventh to ninth post-operative day. The patient remains non-weight bearing for approximately six weeks post-operatively to protect the healing of the osteotomy site of the greater trochanter of the femur. Bicycle riding is started sometime in the beginning of the third post-operative week and continues after discharge from the hospital. The patient is usually discharged from the hospital when he is able to get to and from the bathroom and handle his activities of daily living and perform his exercise program with minimal assistance. When both hips are operated, we wait a period of three weeks between the surgery on the respective hips. Usually the ambulatory program is somewhat slower following the second hip to allow protection of the greater trochanteric osteotomy site of the first hip inasmuch as this hip will be bearing most of the brunt of ambulation during the initial stages of the second ambulation period.

## Results

This study was started in June of 1970 and concluded on March 15, 1972. The treatment facility for this study was Norfolk General Hospital.

All of these patients were incapacitated by their hip disease and had been forced to reduce their activities and change their pattern of living because of pain and restriction of motion of the hip. Post-operatively, the patients experienced marked relief of pain, increase in range of motion of the involved hip and an increase in their level of activity. The Harris hip analysis scoring techniques revealed a definite improvement in all patients, comparing pre- and post-operative scores.

Initially, the McKee Farrar prosthesis was used. However, this prosthesis resulted in a vaulting type gait and subsequently the Charnley-Mueller prosthesis became the prosthesis of choice. In this study, eight McKee-Farrar prostheses, 39 Charnley-Mueller prostheses and two Charnley prostheses were inserted.

The study involved 38 patients and 49 hips, included 23 females and 15 males. Of this group, 25 patients (30 hips), were operated upon for degenerative joint disease, while nine patients (13 hips), for rheumatoid arthritis, and two patients (three hips) for congenital dislocation of the hip. In three patients, a femoral prosthesis previously inserted for fracture of the femoral neck was removed and replaced with a total hip replacement prosthesis. The oldest patient was 83 years of age and the youngest was 33 years of age. The average age was 61.

In 18 hips the greater trochanter was osteotomized. A subcutaneous adductor tenotomy was necessary in 14 hips.

The complications of surgery included:

1. Seven patients developed thrombophlebitis (five had a pulmonary embolus). None were fatal and all responded to anticoagulant therapy.
2. Three patients had dislocations. One anteriorly and two posteriorly. One responded to closed reduction under gen-



eral anesthesia. One required an open reduction. The third patient required a secondary procedure involving distal transplantation of the greater trochanter.

3. One patient had a fracture of the calcar of the femur. This fracture healed spontaneously with a period of rest.
4. Three patients developed ducubitus ulcers of the sacral region, two required debridement and secondary rotation flaps, the other healed spontaneously.
5. Five patients experienced gastric dilatation and four had paralytic ileus post-operatively. All responded well to therapy.
6. Three patients had acute renal failure which responded to treatment.
7. Four patients experienced greater trochanteric bursitis of the femur. All responded to injections with Kenalog and correction of leg length discrepancy.
8. One patient had superficial infection of a hematoma in the adductor tenotomy site. There were no deep seated infections.
9. One patient developed a staphylococcal enterocolitis and staphylococcal septacemia thought to be related to prophylactic antibiotics. This responded to treatment.
10. Two patients developed hematomas in the operative site when anticoagulation was started for thrombophlebitis. Both patients responded to withdrawal of anticoagulation therapy.
11. One patient had an injury to the profunda femoris artery, felt to have been caused by a retractor. The artery was ligated and no circulatory problems followed.

Using Harris's method for hip analysis scoring, the average improvement in score comparing the pre-operative hip analysis and the final hip analysis was 56 points. Many of the patients were evaluated too soon post-operatively to give a real index of improvement so this value in reality should be higher.

The longest hospital stay was required for patients with bilateral hip replacements with rheumatoid arthritis. An average hospital stay of 69 days was noted as compared to an average hospital stay of 43 days experienced in patients undergoing bilateral hip replacement for degenerative joint disease. This is in contrast to an average hospital stay of 36 days for unilateral hip replacement in patients with degenerative joint disease, and 42 days in patients with unilateral replacement of rheumatoid arthritis. A three week recuperative period was allowed for patients undergoing bilateral procedures.

### Discussion

From the very onset of this study, the possibility of infection caused great concern. Rigid restrictions were established and maintained to reduce the infection rate.

At first an attempt was made to perform the operation without removing the greater trochanter. However, later in the study it was decided to remove the greater trochanter for comparative results. To date we have experienced no non unions at the osteotomy site nor has there been any increase in the incidence of greater trochanteric bursitis in those patients where the trochanter was removed as compared to those patients where the trochanter was not removed.

The advantages of removing the greater trochanter include:

1. Greater exposure with less strenuous retraction.
2. Decreased operative time.
3. More controlled traction on the abductor mechanism of the hip.
4. Less inequality of leg lengths post-operatively.
5. Less myositis ossificans and calcification about the hip joint post-operatively.

In preparing the acetabulum, we have attempted to:

1. Ream the acetabulum deeply to help medialize the femoral head, thereby increasing the lever arm of the abductor

mechanism adding to the stability and strength of the hip.

2. The reaming is directed superiorly and slightly posteriorly.
3. The acetabulum should be widened more than deepened if the acetabulum is already quite deep.
4. The posterior lip of the acetabulum can be resected when prominent.
5. The appropriate prosthesis is selected on the basis of the capacity of the acetabulum to be deepened and widened. In the smaller acetabulum or the shallow acetabulum found in congenital dislocations of the hip, the small Charnley acetabular component lends itself best.
6. The femoral component of the prosthesis should be brought down to the level of the original acetabulum in cases of congenital dislocated hips providing this does not result in excessive traction on the vital soft tissue structures. It is also necessary for the original acetabulum to be formed sufficiently and have sufficient bone to allow reaming of the acetabulum to allow seating of the acetabular component of the prosthesis. If this is not possible, the most suitable level is utilized.
7. The soft tissue about the acetabulum is disturbed as little as possible to reduce the stimulation of new bone formation. The osteophytes about the acetabulum are resected and cancellous bone at the very edge of the acetabulum exposed to allow greater contact between cancellous bone and Methyl Methacrylate.
8. Total bone coverage and support for the acetabular component of the prosthesis should be obtained. In those cases where this was not possible and the outer most lip of the prosthesis was not covered by bone, there have been no untoward effects such as dislocation of the prosthesis, loosening of the prosthesis, or resorption of bone about the prosthesis.

When tailoring the femoral neck to accept

the femoral component of the prosthesis we prefer to:

Leave the femoral neck long enough to allow a tight fit of the femoral and acetabular component without having to transplant the greater trochanter too far distally. When the prosthesis is seated on the calcar rather than in the medullary cavity, more support for the prosthesis is obtained. The appropriate prosthesis is determined by size and shape of the femoral medullary canal and its capacity for remodeling and reaming. In particularly narrow canals, it may be necessary to use Kunschner reamers to enlarge the femoral canal. Prevent residual external rotation of the leg post-operatively which might result from:

- a. Leaving femoral neck too long.
- b. Insertion of prosthesis with too long a femoral neck.
- c. Inadequate resection of the short external rotators of the hip.

A significant drop in problems were noted when the patients were allowed out of bed in a chair within the first 48 hours. The ambulation program has been accelerated, and to date no dislocations or wound problems have resulted from the program of rapid mobilization.

## Conclusions

1. Total hip replacement procedure is excellent for rehabilitating patients with degenerative joint disease, rheumatoid arthritis, and old congenital dislocations of the hip.
2. We prefer to limit the procedure to those patients over 60 until long range results become available.
3. The procedure can be considered earlier in those patients with rheumatoid arthritis with multiple joint involvement and self-imposed restriction of activity.
4. Presently the most desirable total hip replacement consists of a polyethylene acetabular component and a non-reactive metal femoral component such as Vital-



lium held in place with Methyl Methacrylate.

5. Prophylactic antibiotics are used routinely.
6. Distal transplantation of the greater trochanter allows for a better exposure, more controlled traction on the abductor mechanism.
7. Both Charnley and Charnley-Mueller prostheses should be available to accommodate any unusual features encountered in the size and contour of the acetabulum and shaft of the femur as well as the consistency and structure of the bone.
8. Patient motivation is mandatory in achieving a successful outcome.
9. A closely supervised and structured post-operative program is necessary to prevent complications from over activity in the absence of pain.
10. A careful explanation regarding positions in bed as well as allowed activities is necessary to prevent late dislocations or avulsions of the greater trochanter from the femur.
11. Rigid standards in the operating room as well as in the hospital and physical therapy departments are required to re-

duce complications and achieve a successful outcome.

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### LET'S REMINISCE!

*North Carolina Doctors to be Taxed.*

According to the *N. C. Med. Jour.*, March 20th, "the doctors of this State must hereafter pay an annual tax of ten dollars into the State treasury for the privilege of practicing medicine! This is the edict of the mongrel Legislature which has been in session in Raleigh, and which has attracted the attention of the whole country by the many strange things they have done."

(Virginia Medical Monthly, April, 1895)

# Perforated Duodenal Ulcer

## Simple Closure vs. Definitive Operation

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**There is no simple formula to indicate which perforated ulcer should have simple closure and which should have a definitive procedure. Rather the decision must be based on the findings in each case and on the experience of the surgeon.**

**T**HOUGH PERFORATED DUODENAL ULCER has allegedly diminished in frequency, its continued occurrence is a virtual certainty. The diagnosis is correctly made preoperatively in the majority of instances, and operative treatment is carried out in all but the sickest of patients with prohibitive risks. Recent reports have emphasized the ongoing controversy regarding the relative merits of simple closure and primary definitive procedure at the time of perforation. Most surgeons agree that in cases of concurrent bleeding and/or obstruction or perforation of a large gastric ulcer, simple closure of the perforation is unsatisfactory treatment. Simple suture, however, probably remains the treatment most frequently performed for the otherwise uncomplicated duodenal perforation, largely due to the influence of Graham.<sup>1</sup> The concept of primary definitive operation is not new, having been first carried out by Keetly<sup>2</sup> in 1899 and first recommended as a primary form of therapy by von Haberer<sup>3</sup> in 1919.

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DeBakey,<sup>4</sup> in a large series reported in 1940, found better survival in patients undergoing definitive therapy than those undergoing simple closure. Our own recent report<sup>5</sup> and the experience of others<sup>6-9</sup> have emphasized that the mortality for a primary definitive procedure approaches that of these procedures done electively and even show a lower mortality rate in groups of patients treated by definitive operation compared to those treated by simple closure.

It should be emphasized, however, that most studies have been neither prospective nor randomized. Under these circumstances there is a natural tendency to perform a definitive operation in younger, better risk patients in whom operative conditions are favorable for primary resection. In the same manner, elderly, debilitated patients with pre-existing, severe cardiac and pulmonary disease are "selected" for simple closure. The mortality for these alternative procedures in comparable risk patients has not been precisely determined. Booth and Williams<sup>10</sup> recently reviewed 344 cases of perforated duodenal ulcer treated by simple closure and found a mortality rate of 2.8 percent. All deaths in his experience occurred in elderly patients and most were due to concurrent cardiovascular or respiratory disease and not due to surgical complications. It is strongly doubtful that these patients would have survived had they been treated by a primary definitive procedure. What is apparent is that in the hands of an experienced operating team, and in the absence of significant peritoneal soilage, a definitive procedure can be carried out with relative safety on an otherwise healthy patient.



Another important issue in the debate is the likelihood of severe recurrent ulcer symptoms following simple closure of a perforated duodenal ulcer. In this regard, reports have been far from uniform. Jarrett and Donaldson<sup>11</sup> recently reported 252 cases of perforated ulcer treated by simple closure and reviewed 1643 additional cases collected from the literature. In the several reports cited by these authors, the rate of recurrent ulcer symptoms ranged from 60 to 81 percent and 30 to 49 percent of the patients required subsequent definitive operation. In our own experience,<sup>9</sup> 80 percent of the patients having simple closure of a perforated duodenal ulcer had significant recurrent ulcer symptoms and 67 percent required a subsequent definitive ulcer operation. McDonough and Foster,<sup>12</sup> however, reported that only 37 percent of their 187 patients treated in this manner had recurrent ulcer symptoms and only 23 percent required a subsequent definitive procedure. This disparity cannot be readily explained, but no doubt is related in part to the length of patient follow-up. In addition, very real differences in patient populations would seem to exist based on geographic and socioeconomic differences. In this regard, our report dealt with a predominately rural population and we believe this may help to account for the higher rate of severe recurrent ulcer symptoms.

We have attempted to identify high risk groups for ulcer recurrence following perforation without success. A relatively strong argument for definitive operation can be made in instances of chronic duodenal ulcer disease as evidence by a long history of symptoms or by examination of the stomach and duodenum at operation. The difficult decision arises in the case of the younger patient with few premonitory symptoms who suddenly experiences perforation. In our patient population,<sup>9</sup> the likelihood for subsequent significant recurrence of symptoms has been as high in this group as in the group with longstanding ulcer symptoms and on this basis we have tended to be more liberal and employed a definitive procedure unless specific contraindications

exist. With this more aggressive approach, we have not seen postoperative, untoward effects related to the surgery itself. In the final analysis, precisely which operative procedure is selected is a matter of the judgment for the individual surgeon. The decision between simple closure and a definitive procedure must be based on the history elicited from the patient, the operative findings, and the experience of the surgeon. Of these factors, probably the most important is the experience of the surgeon.

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(Continued on page 476)

# Nasal Hygiene

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**Ignorance and neglect of simple, universally applicable procedures lead to potentially serious complications of nasal infection.**

**N**ASAL HYGIENE concerns the maintenance of normal function and, also, the restoration of the nose to normal, if pathology intervenes. It incorporates and implements physiologic principles.

In 1941, Arthur W. Proetz published "Essays on the Applied Physiology of the Nose".<sup>1</sup> He believed that the physiology of the nose had been neglected because of enthusiasm for surgery following the development of antiseptic and aseptic technics. Today, the minor role of hygiene is associated with the expanding production of potent pharmaceuticals.

It is irrational, however, to expect that preventatives and cures can circumvent every form of disease. To do so ignores the capacity of bacteria and viruses for genetic variations and adaptations. It assumes that treatment will be universally available, and that everyone will seek and accept treatment. It further assumes that treatment will be uniformly effective, in spite of variables such as allergic and toxic reactions.

The infections, which invade the body through the upper respiratory tract, are sometimes merely inconvenient, but can be fatal, for example meningococcal disease.<sup>2</sup> Serious sequelae can result from ignorance and neglect of simple physiologic and hygienic principles. No matter how many pharmaceuticals we

have, we should recognize and exploit the functions of the human organism.

Proetz<sup>3</sup> named five major functions of the nose: smell, filtration, humidification and heating of the air, and the power of the nose to cleanse itself. Charles S. Sale<sup>4</sup> offers evidence of another function, that the nose secretes enzymes which actively combat infection.

I shall emphasize principles and non-surgical procedures which have the following goals: to eliminate self-inflicted trauma, to maintain adequate airways, to promote drainage of nasal secretions, to assist the functions of warming and humidifying the inspired air, and to utilize the effects of gravitation, heat, and physiologic rest.

The factors which most influence the course of disease and pathology in the nose form a triad. Two of these, infection and the many variations of the immune reaction, are well publicized. The third factor is trauma. This last is of equal stature but is rarely recognized or appreciated.

The observation that many patients blow blood-stained secretions from the nose is simple and dramatic proof that air movement can be traumatic, but it provides little quantitative information. More significant injuries may be less conspicuous. Air currents can set up destructive vibrations in the nasal mucosa. The greater the amplitude of the vibrations, the more harm will result.

The effects of air moving through the nose will depend on several factors. These include its relative pressure, its velocity, the patency of the airways, and the physical condition of the mucosa.

The intra-nasal air pressure is less than atmospheric on inspiration, and greater than atmospheric on expiration. Variations from the mean pressure may be insignificant in

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normal breathing but become extremely important when respiration is forced.

The air's velocity is greater where the channel is narrowed. Damage may also be greater where the airway is constricted but does not vary directly with velocity. The most serious injury to the mucosa occurs with that velocity of air which produces a resonance with the widest, most violent vibrations. The mucosa, itself, is most vulnerable when it is turgid and inflamed.

Pressure and velocity are governed by the theorem of Bernoulli. Pressure is least where velocity is greatest. This relationship in the nose is of paramount importance. Voluntary, forced changes in the velocity and pressure of the air currents, acting on innumerable anatomic configurations, can produce an infinite variety of effects, many of them harmful.

The results are often unexpected. The open side of the nose may be seriously diseased, while an obstructive septal deviation may be so located as to protect the contralateral sinuses. Any apparent contradiction must lie in our imperfect knowledge of intra-nasal relationships. Bernoulli's theorem is immutable.

Forced inspiration tends to cause the mucosal blood vessels to fill, because of the significantly lowered intra-nasal pressure. Then, the stroma is more easily injured, especially in disease when the inflamed mucosa reacts with progressive swelling.

In an hypothetical, vulnerable nose, forced inspiration can injure the mucosa which surrounds a sinus ostium. The intra-sinus air pressure is simultaneously reduced. When atmospheric pressure is restored or exceeded, the swollen tissue is pushed towards the ostium. It may become trapped or adherent, making sinus drainage impossible.

In another situation, it is conceivable that violent reduction of intra-nasal pressure may cause swollen sinus mucosa to move into or through the ostium and to become strangulated.

On the other hand, forced expiration can introduce infected material into the sinuses and

Eustachian tubes, which may overwhelm their defenses. But, the nasal mucosa is flattened and is protected to some extent. Sneezing, even though the velocity is extreme, does little harm, unless the airway is constricted. Patients complain of sneezing but ignore the blowing and snuffing they do before and after the sneeze.

It is best to sneeze through the mouth with the lips opened narrowly, and with the head back. Raising the arms will help soften the sneeze.

Patients seldom blow blood from the nose during the acute stages of inflammation. To do so would be too painful.

Voluntary forced expiration and inspiration are both deplorable. It is my hypothesis that a single blast can do all but irreparable harm.

Ill-advised attempts to maintain an airway and to remove secretions can injure the nose severely. Proetz<sup>5</sup> believed that even distribution of air was important. I disagree. It is the avoidance of injury which is important.

If the anatomically functional nose is blocked during an influenzal infection, the obstruction should be transient, unless the mucosa has been, or continues to be, abused by blowing, snuffing and decongestant sprays. Treatment of the nasal congestion should aim at the etiology and should be guided by physiologic considerations. Many times, the nose is reacting to disease and injury, and it is logical to permit it to rest. Restoration of the airway is of secondary importance.

When a patient presents himself with an acutely inflamed, possibly obstructed nose, often with sinus pain, the first, most important step may be to protect the nose by complete occlusion. A pledget of cotton is placed loosely in the tip of one or both sides of the nose. This should be changed as often as it becomes moist. Proper placement is essential. The cotton will be irritating and ineffective if the patient tries to push it out of sight.

Occlusion of the most congested, worst traumatized nose does not prolong sinus pain, but does much to relieve it. Occlusion is no

longer needed when the patient learns to protect the nose. Aeration will follow.

Proetz<sup>6</sup> favored treatment of acute sinusitis by patient, repeated gentle topical applications of vasoconstrictors. If such a procedure succeeds in establishing drainage and in relieving pain, the nose must none the less be protected against a repetition of abuse. In my experience, occlusion of the nose and other procedures, to be described later, have reduced the indications for topical therapy.

Removal of nasal secretions is a ciliary function. The mucous blanket is carried normally to the nasopharynx and swallowed. In the early stages of acute infection, the secretions are generally increased but are fluid. Removal is no problem, although the drip may be annoying. Later, the exudate thickens. If the airway is patent, it dries quickly. The cilia will be trapped and ineffective, unless the air is sufficiently moistened. Drainage improves when the nose is occluded. The mucosal surface becomes moist, permitting enzymes and cilia to function.

Exudates may, indeed, be more than the cilia can transport, but it is dangerous to clear the nose by blowing, especially in the acute stage of infection. Careful use of a nasal douche, with Alkalol, may make the patient more comfortable. Daily observation by the rhinologist, with gentle removal of excessive secretions, takes little time and is advantageous. The smallest suction tip is least traumatic.

The acute secretions of a cold are alkaline<sup>7</sup> and irritate the skin. The secretions which present anteriorly can be removed by compressing the alae of the nose with the handkerchief and by blotting gently. If there is any question of trauma from attempts to clear the posterior drainage, I advise swallowing with plenty of water, instead of the conventional hawking and spitting. I have never experienced symptoms of any kind from the ingestion of secretions associated with colds or "flu".

We can support nasal function further through modification of the environment. The lung needs air at 35°C (95°F) with humidity

of about 85%.<sup>8</sup> A climate such as this would be uncomfortable, but the closer we approach these conditions, the more relief we can give to the nose.

The nose is active and hard working. Physiologic demands may be met easily in health. Not so easily in disease, especially in winter, when the relative humidity may be quite low.

Cold air, itself, does not impair nasal function<sup>9</sup> but can stimulate it. Heating cold air, however, will dry the nasal mucosa unless comparable water is added. In general, it is better to dress warmly and to keep the temperature of the room low.

It is rare to find an ideal system for heating and humidification. Proetz<sup>10</sup> suggested simple substitutes, such as a boiling teakettle, the intermittent playing of a hot shower, together with double sash and an electric fan to keep the moisture from condensing on walls and furnishings.

No practical means of humidification can be ignored. The simple wearing of a gauze surgeon's mask is surprisingly efficient. On expiration, the mask creates a warm, moist chamber. Some air is trapped, and, also, the mask absorbs water, which will be restored, in part, on inspiration.

The mask should be washed free from lint. It may be worn wet or dry, day and night. The manner in which it is worn will tailor its effect to suit the needs and comfort of the patient. I usually wear it loosely, with the lower strings free. Again and again, in the acute stages of a cold, I have had sneezing and dripping stop immediately when I put on the mask. The effect can be miraculous.

In addition, the mask will contribute to the comfort of anyone who breathes through his mouth either by necessity or from habit.

Proetz<sup>11</sup> minimized the effect of posture upon nasal drainage, but he considered only the gravitational pull upon normal secretions and upon thickened, excessive exudate. He did not appreciate that elevation of an infected sinus can improve the circulation of blood and lymph, with relief of congestion. Elevation can open a blocked airway and can be



the decisive factor in opening a blocked ostium.

The side which is blocked or painful should be kept uppermost. This may require turning the head from one side to the other at night, as conditions change. It may prove irksome, but I know of no procedure more effective for the prevention or relief of complications of infection.

Infections of the respiratory tract often begin with chilling. Prompt restoration of normal body temperature is indicated. The use of the face mask is desirable at the same time. Results may vary from nil to postponement or prevention of infection or, which may be equally important, to a reduction in its severity.

In the treatment of respiratory infections, heat may be employed in the form of steam inhalations and hot baths. Hot drinks are also effective and are readily available.

Any liquid will do. Hot water is ideal because it is simplest to prepare. It should be sipped slowly, frequently, and as hot as may be tolerated in order to achieve the maximum stimulation.

Hot drinks appear to benefit the patient through improved circulation of blood and lymph, according to Proetz,<sup>12</sup> as well as by stimulation of the mucosa. Secretions are increased and are more fluid. Gummy exudates are mobilized, and drainage improves from above and below. Coughing is less frequent, less traumatic and more productive. Therapeutic effects can be traced from the nasopharynx to the bifurcation of the trachea, perhaps beyond.

Iced drinks are to be avoided. There is no contraindication to cold drinks in moderation, since the patient needs a plentiful fluid intake, but hot liquids are best.

The benefits of physiologic rest may be secured, as has been suggested, by warming and moistening the inspired air, by occlusion of the nose, if that is necessary, and by respecting at all times the limitations which may impair its function. We should remember,

also, that the work of the nose is materially reduced by rest in bed.

The practice of nasal hygiene is invaluable in the prophylaxis and treatment of acute and of many chronic infections. Its importance is enhanced by the fact that infections may be both multiple and synergistic. A "cold" virus injures the mucosa and facilitates invasion by other pathogens. I make this statement with the knowledge that epidemiologic studies necessary for proof have not been made.

The case is different where the viral agent is easily identified. For example, measles complicated by streptococcal mastoiditis was commonplace before the age of sulfas and antibiotics.

It is interesting, moreover, that Ewarts A. Graham,<sup>13</sup> early in 1918, described an epidemic of hemolytic streptococcal empyema at Camp Lee, Virginia. This was one of several such epidemics to be reported almost simultaneously in our army. It was not until later in 1918 that the great epidemic of influenza established beachheads in the United States, but there can be little doubt that the streptococcal epidemic persisted and contributed to the terrible loss of life.

Nasal hygiene plays a role in other situations where infection may be absent or less prominent. Such are epistaxis and many instances of anatomic malformation. Patients who are obsessed by postnasal drip are prone to traumatize the nose. They stimulate it to respond in the way they least desire. In allergic individuals, proper hygiene might well prevent the formation and persistence of nasal polyps, and would certainly minimize their complications.

We see malfunctions, disease and its complications daily. Two questions arise. Are these conditions inevitable, and, what can we do? Albert B. Sabin<sup>14</sup> warns against the prophylactic use of antibiotics. I submit that proper hygiene offers the most widely applicable and effective prophylaxis of nasal disease. Nearly as much may be said in respect to treatment.

Efforts to inform the patient can be time-

consuming, even frustrating. Part of our compensation must come from making the patient self-reliant and less dependent on his physician. This dividend will gain in importance as government intervention removes more and more restraints on the demand for medical care, and, at the same time, adversely affects the supply.

Patients will try to carry out procedures which they believe to be important. If they have suffered, they will cooperate most willingly. Difficulties exist, to be sure, in communicating new and unusual ideas. Slow learners will be found in this field, as in any other, but they should not discourage us. We may even learn to counsel that group effectively, as we refine our teaching technics.

Above all, be gentle.

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### Average Doctor Bill Declines Under Medicare

The average doctor bill has been going down—not up—under Medicare, data from the Social Security Administration says. The SSA reports that average charges by doctors for medical care services provided under Medicare are lower than when the program began—down 5.2 per cent for surgical services and down 11.5 per cent for outpatient medical care. The figures are published in *AMA Update*, a publication of the American Medical Association.

The figures are for the period beginning with the advent of Medicare in the summer of 1966 through the end of 1971. Figures for 1972 are not yet available.

Under Medicare, a doctor bill is approved for payment only if it has been determined by the insurance carrier to reflect the doctor's "customary charges" for similar services, and also the charges prevailing among other doctors in the locality for similar services. Hospital bills, on the other hand, had nearly doubled (up 83 per cent) by the end of 1971, the SSA data shows. In July, 1966, average charges were: Hospitals, \$47 per day; Surgeons, \$174 per procedure; Medical services, \$52. In December, 1971, Hospitals had climbed to \$86 per day; Surgeons had dropped to \$165; Medical services had dropped to \$46.



# Respiratory Care in Virginia

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**Centers for the intensive care of respiratory emergencies exist in Virginia but are necessarily limited in number and can handle only a few of the patients with respiratory disorders. Health personnel in all communities and rural areas should be able to recognize and treat respiratory failure.**

**T**HESE REFLECTIONS are inspired by my experience of respiratory care in two different areas of Virginia, Winchester and Norfolk, and by my participation in the work of the Virginia Thoracic Society and the Virginia Lung Association.\* The present facilities and their potential development in the State as a whole will be presented here.

It appears that continuous progress has been made in this field over the past several years, that a good specialized structure exists, and that, with proper use of the facilities, any patient in any part of the State, suffering from a severe respiratory ailment, can be given the benefits of modern medicine.

This doesn't mean that a patient with a serious respiratory disease need be in a specialized hospital unit, treated by medical and paramedical specialists. Any physician or surgeon can avail himself of the considerable progress made in the diagnosis and treatment

of respiratory disease, and use this knowledge for the patient's benefit even if specialized facilities are not readily available to him.

I will describe the specialized facilities first, then explore how the physician "in the field" can get help in solving his respiratory problems.

## The Specialized Tools of Respiratory Care

### *A—Pulmonary Function Laboratories*

Thirty years ago there were only a few laboratories of this kind in the world. There followed a progressive increase in numbers so that presently in the United States alone there are hundreds of pulmonary function laboratories. They apply principles and use methods which have not changed much during these thirty years, based on older and sound knowledge of physiology. The need for broad application of the tests arose from the increasing problem of respiratory disease, particularly chronic obstructive lung disease, cancer of the lung, thoracic surgery, and chest trauma.

A pulmonary function laboratory serves two major clinical purposes:

a) Evaluation of the overall efficiency of the lungs by arterial blood analysis. This requires strictly anaerobic sampling of arterial blood; analysis of the sample within an hour, preferably immediately; a well trained technician and machines in perfect condition. There can be no exceptions to these strict conditions. It is better to make decisions in the treatment of respiratory failure without blood analyses than to make errors of treatment based on erroneous reports due to such mistakes as venous blood drawn instead of arterial, sample contaminated with air, improperly calibrated machines, et cetera. The results must be competently interpreted, and the analyses repeated

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as often as needed to judge the evolution and dictate the type of treatment in the face of variable situations.

b) Analysis of functional disturbances. Spirometry was the first tool and is still the most important tool for such analysis.

Done with instruments of variable complexity and cost, ranging from a simple office spirometer to electronic machines with computers and memories, spirometry can give two sorts of information:

If the vital capacity, indicating the reserves of ventilation, is normal or abnormal; in the latter case, restrictive ventilatory insufficiency is present;

If the tests of airway patency, the most used being the  $FEV_1/FEVC$  ratio, are normal or not, thereby showing obstructive ventilatory insufficiency. In this case, a bronchodilator aerosol should be given and the tests repeated: improvement follows if the obstruction is due to bronchospasm.

Results are better expressed in per cent of predicted values.

#### *Other Pulmonary Function Tests*

There are many, permitting investigation of several aspects of pulmonary function: diffusing capacity, lung volumes, distribution of ventilation, ventilation/perfusion relationships, mechanics of breathing, and others. Tests of cardiovascular function relating particularly to the ability of the blood to deliver oxygen to the tissues and carbon dioxide to the lungs, are essential in patients in respiratory failure.

Efforts are made by the industry to improve pulmonary function equipment, with a desire to improve the quality of the tests and facilitate the calculations.

Fluoroscopy of the chest offers the possibility of observing ventilation, during quiet and forced breathing, and of forming an opinion of the quality of overall and of regional ventilation.

Radioactive xenon, used by intravenous injection and by rebreathing, offers excellent possibility of assessing the distribution of ven-

tilation and of perfusion in different areas of the lungs, but requires expensive equipment and very specialized technicians.

#### *B—Inhalation Therapy Services*

Recent years have seen a considerable increase in the quantity of inhalation therapy units and in the quality of care given. There is still much to be done, but the investigations of the Virginia Thoracic Society show an encouraging progress.

Given by inhalation therapists or by nurses specially trained, inhalation therapy includes such important actions as cough assistance, breathing exercises, chest percussion, postural drainage, tracheobronchial aspiration, operation of ventilators, oxygen therapy, aerosol and humidity therapy. The equipment and techniques are described in books and articles. Schools of Inhalation Therapy train therapists and nurses and prepare them for certification by the American Association for Inhalation Therapy. The number of these specialists is still far below the need, and often non-certified personnel is used. This requires their instruction and supervision by qualified physicians. The importance of competent personnel should not be ignored, since great harm can result from insufficiently aggressive as well as from excessively aggressive treatment, and from errors. For example, a patient may suffer from insufficient aspiration of tracheobronchial secretions, leading to hypoventilation, hypercapnia, acidosis, and hypoxemia. He may suffer from excessive aspiration, resulting in the pulling of excessive amounts of alveolar gas and fatal hypoxemia; improperly performed suction may lead to damage to the mucous membranes of the airways. Oxygen therapy, particularly in the patient with chronic respiratory disease, requires precise dosage, since oxygen in large concentrations is toxic to the tissues of the airways and of the lungs.

#### *C—Intensive Respiratory Care Units*

These represent the ultimate in concentration of facilities and specialized personnel. The



complexity and cost of such units is considerable and their numbers necessarily limited. But a number of men, women, and children are alive who would not be, had they not been treated in a specialized care unit.

Cardiac care units are a universally recognized necessity; their number and efficiency have markedly increased in recent years. The needs for specialized respiratory care is of similar importance and must be taken very seriously. The solution lies in adequate numbers of respiratory care units, and where those units do not exist, of well trained physicians.

#### *D—Post-Critical Care*

After an episode of severe respiratory failure has been successfully treated, the patient may need continuing special care because of chronic lung disease. It is advantageous to have these patients under the care of specially trained nurses, with the services of pulmonary function laboratories and inhalation therapy. The Emphysema Ward of Veterans Hospitals is a good solution to this problem which is hard to solve in general hospitals.

#### *E—Home Care of the Respiratory Cripple*

This represents a great challenge to the family physician, whose patient is getting progressively worse, or who has been discharged in a state of chronic respiratory failure from the hospital and needs daily medication to keep airways open, to control chronic infection; he may need pressure breathing devices, oxygen. He needs close medical supervision and the daily help of members of his family, knowing what kind of care is needed in routine days and what measures to take in emergencies. Periodic visits by competent nurses help when available.

### **Resources Available in Virginia**

Over the past five years, the Virginia Thoracic Society (VTS), medical arm of the Virginia Tuberculosis and Respiratory Disease Association (VTRDA), which is now closely affiliated with the American Thoracic Society, has surveyed the resources for respiratory care

in the State and established a map of the facilities. These are evidently most developed in the two medical schools, Charlottesville and Richmond, and in several large cities, such as Norfolk, Roanoke, the suburbs of Washington and others. Smaller cities and rural areas are less developed, not always in proportion to the size of the hospital, but depending on local interest and possibilities.

The VTS directs its action at improving the facilities throughout the State. The specialized laboratories and treatment units described at the beginning of this paper cannot be multiplied indefinitely; the difficulty of training and maintaining at a high level of efficiency specialized personnel, particularly in the laboratory field, is a major obstacle; the cost of equipment is less difficult to meet.

#### *Care of the Respiratory Patient Away from a Specialized Unit*

If the patient cannot be kept alive without specialized care, he should be transported to the appropriate hospital. This requires the services of an ambulance. The chances of the patient reaching the hospital in time depend on immediate, competent measures prior to and during the trip. Restoring and maintaining airway patency is by far the most important of these measures. Assisted cough, or oropharyngeal airway, a suction machine and a catheter are better tools to use in an asphyxiating patient than the oxygen tank which all ambulances possess and which is so often improperly used.

Aware of this problem, the VTS has sponsored the publication of a manual for instruction of ambulance personnel in the problems just discussed. This should prove useful to all concerned, and large orders have been made by interested institutions and individuals.

For the patient in respiratory failure, without specialized facilities nearby and who cannot be transported, his fate is in the hands of the attending doctors. If they know the different modalities of respiratory failure from past experience, from attending courses or meetings, from books and articles, there are many emergencies they can handle. Evidently

a tension pneumothorax, large amounts of pleural fluid, a severe attack of asthma must be diagnosed and treated specifically and on the spot. Apart from these and similar well defined entities, respiratory failure can be handled by proper recognition and treatment of airway obstruction and also of respiratory paralysis.

*Airway obstruction* is a frequent and often treatable cause of respiratory failure. Its best treatment lies in an efficient, productive cough, helped by proper humidification, expectorants, support of the chest wall by another person, postural drainage. If an efficient cough cannot be obtained, due to weakness, breathlessness, coma, the airways must be cleared by suction, using a source of vacuum and suitable catheter; if unavailable, digital removal of foreign bodies, oropharyngeal secretions, and postural drainage with pounding of the chest are essential. Oxygen therapy is often needed, but must not be given alone, without intense efforts at restoring airway patency. When this is achieved, the patient still needs constant observation and often repeated cleaning of the airways.

In the most severe cases, an endotracheal tube is the best way to achieve airway patency and to facilitate the cleaning of the lower airways. It is also the best way to give the patient artificial ventilation, preferably with a pressure breathing machine or respirator, or, if not available, with a self-inflating bag, such as the ambu bag, to which a source of oxygen can be attached. This will allow transportation to an adequate place for prolonged care, and if tracheotomy is considered necessary, it will be done in good conditions with an endotracheal tube in place. Such tubes, suction devices, and breathing bags should be available in all hospitals and in the office of at least one physician in the medical community, however small. The skill necessary to place the tube is expected from any anesthesiologist, and should be expected from any chest specialist, and from family doctors aware of the seriousness of the problem and of the fact that it may arise anywhere.

Respiratory paralysis, due to neurological disease such as poliomyelitis, Guillain-Barre syndrome, severe muscular disorders, and also fatigue in the victims of prolonged excessive work of breathing, such as marked obesity and severe obstructive lung disease, require prolonged assisted ventilation through an endotracheal tube.

Respiratory failure may be insidious and occur in the operating room and be ignored if rapid changes in airway resistance and lung compliance are not recognized; it may complicate primary and obvious cardiac, renal or other disease. The importance of arterial blood analysis is great, but above all, the awareness of the surgeon, anesthetist, and physician of the possibility of respiratory failure is the most important factor.

The knowledge of respiratory physiology and pathophysiology by those in charge of him is, therefore, the essential protection of the patient against potentially lethal respiratory failure. Most physicians, presently practicing, did not acquire this knowledge when in medical school. They can acquire it through medical books and publications and at meetings or postgraduate courses of chest societies and colleges.

In addition to the efforts of the American Thoracic Society and the American College of Chest Physicians throughout the nation, education is offered in the State by different organizations.

The existing medical schools of the University of Virginia and Virginia Commonwealth University, where the staff teaches pregraduate students, house staff and fellows, operate specialized facilities and provide consultant services to hospitals and physicians who require them in any part of the State. They organize symposia and conferences studying different aspects of chest diseases. Large hospitals in the State conduct similar programs. A third medical school, Eastern Virginia Medical School, is being developed in the Norfolk area. Winchester created a School of Inhalation Therapy, with courses offered at Winchester Memorial Hospital and at Shenandoah



College. The Veterans Administration, the Navy, the Public Health Service operate hospitals offering the specialized services and the education in chest diseases. The State Health Department has for many years operated clinics for the detection and treatment of pulmonary tuberculosis and now also turns its attention to other respiratory diseases.

The Virginia Thoracic Society is interested in all these activities and has partly supported them, for instance sponsoring symposia in the medical schools: Conference on Emphysema at Medical College of Virginia in 1967, Conference on Allergy at the University of Virginia in 1971, and Conference on Tuberculosis in Richmond in 1970. The VTS has its own programs: annual meeting in 1970 and 1971 in Richmond; in 1972 in Charlottesville; all bringing top men in the field from within and without the State. It publishes periodically *Notes in Respiratory Disease*, containing information on recent progress in the field, widely distributed throughout the State.

Virginia is divided, as far as VLA is concerned, into thirteen regions, each with its own local Lung Association. Several have programs of their own: e.g., the Southeastern Association, including Norfolk and the Eastern Shore, sponsors an Emphysema Clinic where a program of instruction and rehabilitation of patients with chronic obstructive lung disease is conducted.

The VTS considers that an important part of its organization is represented by the Medical Advisory Committees to the local Associations. The physician members of these committees are the best placed to know the needs of their area, develop the interest of the physicians and surgeons in respiratory care and improve the facilities as needed. They represent an important link between at one end the VTS, the medical schools, and other specialized centers, and at the other end the family doctors anywhere in the State, directly or through their local hospitals and their local medical societies. Through such cooperation one can hope to see a harmonious development of specialized facilities, ambulance services, and training of medical and paramedical personnel. Thus patients will not die from an acute condition which would have been reversed by proper care; and, most important, preventive action, consisting of early and efficient treatment of chronic respiratory disease, will decrease the number of patients who require the expensive and often disappointing treatment of the late stages of the disease. If cardiac disease has stirred the medical profession and the communities into intense action, respiratory disease is worthy of similar interest and action.

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## MEMBERSHIP DUES

Annual Dues Reminder Notices were mailed last month to the members whose dues had not been received for the current year. We would like very much to process all of our Society and AMA membership dues by May 31. Should there be any question as to whether or not your dues have been paid for 1973, please do not hesitate to contact the Headquarters office.

It is encouraging to note a tremendous increase in both Society and AMA membership. AMA membership represents one of the true bargains of today, and we encourage those who have not joined to consider establishing their membership at this time.

# The Emergency Department

## A Department in Financial Trouble or A Losing Proposition?

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**The case for the hospital emergency department is ably presented by the author. Some physicians in private practice, however, may find this somewhat biased and may not agree with some of the figures.**

**I**T HAS BEEN STATED many times that an Emergency Department is a financial liability for most hospitals. The cost of running the Department supposedly far exceeds the income that the Department produces. With the emphasis on the delivery of day-to-day medical care shifting to hospital-based facilities, I feel that the financial structure of the Department deserves a new approach. The Department, whether it functions as a true Emergency Department or a combination of convenience clinic and Emergency Department, as is the case in the majority of hospitals in this nation today, operates usually on a budget similar in financial setup to all the other departments of the hospital. And in simple terms, this means that there is an income produced by the department because of patients' visits. For example, on the regular floors this means bed occupancy; the daily rate of this bed occupancy produces so much income and the cost of running the floor with all its personnel and materials needed, produces so many expenses, and this way the department runs in the red or runs in the black. This applies to Radiology with x-rays produced and the materials used;

to Anesthesiology, Operating Room and Laboratory. All have their budgets, their costs and expenses, and their income. I realize this is simplifying matters to a great extent but basically this is the way the hospital as a whole or any single department operates.

The Emergency Department, however, falls into a totally different category, and even if the total amount of patients' visits and the cash flow produced by those visits at first glance seem to prove substantially the charge that it is impossible to run the Department without having the hospital incur great losses, I feel that this is an unjustified charge resulting from a totally wrong approach. Actually there is no Department in the hospital that produces so much income on its own, generated by the Department itself, for all other Departments of the hospital, and at the same time does *not* receive credit for the income it produces for other Departments. Losing sight of these facts produces the wrong impression that the Department is not self-sufficient, or worse is losing money.

In order to illustrate and, in my opinion, prove my point, I will have to take our Emergency Department as an example. It should be realized that there are a number of variables and practices that come into the picture which will make it necessary to adapt the figures to any particular Emergency Department involved, and keeping those in mind one should be able to adapt these figures to his own Department. Our Department may be somewhat exceptional since the patient load makes it one of the busiest non-university Emergency Departments in the country, and being suburban we function more as a true Emergency Department and less as a convenience clinic than



possibly the average Emergency Department.

In 1971 we saw 50,000 patients and the Department is straining its capacity. This means that the basic cash flow of the Department itself was 50,000 times the hospital fee plus 50,000 times the physician's fee, which are two separate items. The basic fees of these two are \$10.00 for the hospital and \$7.50 for the physician. It turns out that the average physician's fee is about \$11.00 and if one includes the charges for suture material, plaster, drugs, infusions, EKGs, the average hospital fee is about between \$15.00 and \$20.00. Thus the basic cash flow produced by the Department and credited directly to the Department in our particular case would be 50,000 times \$25.00, or \$1,250,000. Our admission rate was 14%. This means that 7,000 patients admitted for an average stay of four to five days represented 32,000 hospital days in this particular year. This in turn means that on any given day there were about 90 beds filled by patients coming directly from the Emergency Department. The four to five day average stay is taken from the overall average stay of the Inpatient Department, and I think it could safely be argued that those coming from the Emergency Department may stay a little longer because of the nature of the admissions coming through the Department. But for general purposes, I am taking the figures of the average patient in the hospital. Ninety beds filled means for normal hospital statistics that a 100-bed hospital is operating at full capacity at all times with this patient load. On room charges alone, at \$40.00 a day, this results in a cash flow income to the hospital of 32,000 times \$60.00, or \$2,000,000.00, an income produced directly by the Emergency Department, and the majority of those patients are unattached to any private physician and are initially worked up by the Emergency Department. This amount of \$2,000,000 is *not* credited to the budget of the Emergency Department. Of all the in-hospital patients produced by our Department, each one will receive a chest x-ray and basic laboratory tests. Seven thousand chest x-rays will bring basic income for

the Radiology Department of 7,000 times \$15.00 or \$105,000.00. A CBS and urine test, which is about as basic as one can get, will be at least \$10.00, or \$70,000.00, and a variety of other tests will increase this amount, very conservatively, to \$100,000.00, credited to the laboratory and *not* to our Department.

Quite a number of patients are cardiac patients going to the Intensive Care or Coronary Care Units. Usually the stay is much longer and the room rate is at least \$100 a day. Another good percentage will receive surgery, some as outpatients but the majority as inpatients. Two per cent is a conservative figure representing about 1,000 patients in need of the Operating Room. The average OR charge is at least \$100.00. If one considers the Recovery Room and the type of procedures to be performed because of the nature of the patients coming through the Emergency Department needing surgery, it is probably safe to say that the average time per patient occupying the Operating Room is at least an hour and a half, if not two, which will bring the charges for use of the Operating Room and Recovery Room to between \$150.00 to \$200.00. This amount times 1,000 patients will mean income for the hospital, through the Operating Room use, of \$200,000, again *not* credited to the Emergency Department.

The 50,000 patients seen in the Emergency Department last year produced about 15,000 x-rays. A good percentage of these were extremities—ankles, wrists, knees; the others, of course, could be anything from flat and upright abdomen, chest, spinal, skull, etc. The charge for a simple wrist or ankle x-ray is between \$15.00 and \$20.00. Taking into account that these or similar studies represent the majority of the studies, I would think that \$20.00 represents a conservative average of the charges made for each x-ray study directly ordered by the Emergency Department and excluding those produced later by admission. Fifteen thousand times \$20.00 is \$300,000 produced directly by the Emergency Department, and if that income is divided between the hospital and the radiologist, I would consider



it fair to say that two-thirds of that income goes to the hospital and one-third to the radiologist. The division might be different in more complicated studies where the radiologist's fee represents a larger share of the total fee. However, in these conservatively low average figures one could say that a least one-third represents the radiologist's income. This means that \$100,000.00 of studies ordered by the Emergency Department represent an income going directly to the radiologist (and I would say that this could possibly keep two radiologists comfortable if it were their only income), and \$200,000 will go to the hospital, for either of which the Emergency Department will *not* get a penny's credit.

Of the 15,000 x-rays taken, about 10,000 were orthopedic cases, and of those about 15% were positive x-rays requiring the attention of an orthopedic surgeon. The majority of those again were fractures of the extremities—ankles and wrists—and it is a known fact that Blue Cross-Blue Shield pays for those closed reductions about \$100.00 or \$150.00 a case. This means that with other fractures involved which cost much more, about 2,000 orthopedic cases requiring the attention of an orthopedic surgeons will produce an income for those surgeons of at least about \$300,000.00. In our particular hospital an independent group of seven orthopods covers the Emergency Department and they call whatever comes out of the Emergency Department and is presented to them on a little silver platter their "bread and butter". It doesn't really matter that in many of these cases they like to have their "bread and butter" come to their offices in spite of this very convenient type of income; but with a budget of about \$300,000 it is obvious that our Department produces an income of about \$40,000 for each of them for which they don't have to do anything but to answer our call and come to the Department at their convenience. They are rather eager not to let us touch any of those cases although most of the Emergency Physicians should be able, of course, to apply a cast for a closed reduction of an undisplaced fracture of a wrist or ankle.

Those patients admitted to the hospital—7,000 this year as we have established—will all require a private doctor to attend them while in the hospital. This means that for an average stay of four or five days, at least four or five hospital visits plus an initial work-up easily represent about \$100.00 a case as income to the private physician. Here again is \$700,000 produced by the Emergency Department not necessarily coming into the budget of the hospital but providing, let's call it, "spending money" for the attending physicians.

It should be obvious that all the above represents only a very conservative estimate of the cash flow produced by the Emergency Department—over and above the regular charges made to the patient for Emergency Department use and a physician's service. It should also be obvious that there is no Department in the entire hospital that produces such an enormous cash flow, independently of the private physicians. The way it works at the moment, especially in the well-established Emergency Departments, is that the private physicians are more and more depending on the Department during their off-duty hours. Even if a patient presents himself stating that he does have a private physician, in the majority of cases today the private physician either has sent him in to our Department during off hours or simply isn't available and instructs the answering service to do the same. The result is that in most of these cases, whether attached or unattached to a private physician, the initial work-up and decision for admission is being done by the Emergency Physician, especially in the off-duty hours. In addition to that, many private physicians now conveniently state that they do not repair lacerations, that they do not have x-ray facility, that they do not have an EKG, that they do not have proper laboratory facilities; and anyone calling a physician who may possibly be a candidate for admission is sent directly to the Emergency Department for the initial work-up and decision, rather than instructed to go to the office for the same. As a result,



most of the cases seen, whether attached or unattached to a physician, are in the strictest sense of the word basically emergency cases that are produced and initiated by the Department. Also, and here is an almost more important factor of the whole spectrum, the other 85% (meaning the other group that does not need admission) will as a rule need at least one follow-up visit and I estimate that an average of at least two follow-up visits are necessary. Here again, about 40,000 patients in our case will need another visit, and in this shifting population where the majority have no private physician at the time of their initial visit, at least 30,000 are referred as new patients to the private physicians, with again an average of at least two follow-up visits, representing an income for the outlying physicians with a usual office fee of \$6.00 or \$7.00, of about \$200,000 being channelled out to the private physicians.

Keeping all this in mind, realizing that a 50,000 patient load produces a very conservatively estimated cash flow in one direction or another of at least \$6,000,000, should make hospital Administrations stop and think a while. Among others, they should adapt their figures of patients' load to their own hospital. They should realize that if their patient load is less or far less than ours at this moment, it will never be less than what it is now. The established yearly increase of patients is 15 to 20% in any Emergency Department all over the country. They should wonder if it really is a wise policy to hide behind cloudy figures of losing money and use this as an argument and justification to offer the physicians who will man this Department on a 24-hour a day basis a set salary that totally ignores the enormous cash flow these men create for the entire hospital and the outside staff, and totally ignores the incalculable service they provide for the community. On top of that this takes away the incentive that applies to any production, meaning that the more one produces the more one might earn. I think it is a gross mistake to quibble and pennypinch specifically with those on whose quality of performance, function

and abilities the entire Department rests. Any Administrator, Board and Staff who think they can get away with that and at the same time attract those capable of providing the best medical care the community deserves, have a very unpleasant surprise in store for them. And the result is that the community and the population the hospital serves will suffer most because of these short-sighted pennypinching policies.

All this does not take into account the basic function of the Department, namely, providing care to the acutely ill and distressed at all hours of the day and night, a function of cardinal importance for the community that today is not matched by the private physicians. This is a function that cannot be calculated in dollars and cents, but the service to the community of course is enormous. With the the delivery of medical care shifting toward hospital-based facilities, it should be clear to any Administration or Board of Trustees that even without the above-quoted figures, the amount of good will created by a well-run Emergency Department staffed by top quality personnel, the best available, would even justify what is called a money-losing Department. The ill will created by a poorly run, poorly staffed Department could make or break the name and reputation of any hospital. The Board of Trustees, Administration and Staff should realize these facts, recognize this trend and go all out to organize its Emergency and Outpatient Department as soon as possible with the best available medical and paramedical personnel, thereby supporting the goals of the American College of Emergency Physicians by recognizing and accepting the initial treatment of the acutely ill and wounded as a true specialty in its own right.

As stated, the figures were from a suburban hospital with a true emergency percentage of 80%. It should be obvious that they can be easily adapted to any hospital, by starting out with the total patient load and changing the percentages of admissions and kinds of cases as they apply to one's own. Depending on its location and function, these figures will

vary somewhat. However, the most important function will be true and present in any one, namely providing 24-hour a day top quality care for the acutely ill and wounded in the community the hospital serves. By considering this as the major function of the hospital and of the Department, all the other figures become relatively unimportant. For instance, one lost malpractice suit nowadays can wipe out several months if not years of income. Yet if one had to go by dollars and cents, I believe it would be fair and realistic to consider the

unique position the Department maintains in the structure of the hospital and the cash flow it creates as a Department for all the other Departments of the entire hospital and the entire staff. Looking at it this way, I would claim that there is no Department in the hospital that operates so thoroughly and completely in the black as the Emergency Department.

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### **New Treatment Taken Right Off the Shelf**

Not all medical discoveries emerge from sophisticated laboratories after years of tedious study. One which shows great promise came right off a supermarket shelf, and you probably have some in your kitchen.

This particular "wonder drug" is plain sugar. Used by a Maryland physician, it has healed severe decubitus ulcers where other treatment has failed. Such ulcers are better known by the rather mild sounding name of bed sores—but they can extend to the bone and cripple, or even kill, bedridden patients.

James W. Barnes, Jr., M.D., staff physician at Glenn Dale Hospital, Glen Dale, Maryland, achieved a healing rate of almost 80% over a five-year period, using sugar. "And there was improvement in those ulcers which did not heal completely," he said at the recent clinical convention of the American Medical Association, in Cincinnati, Ohio.

"I tried the sugar treatment out of sheer frustration, after other methods proved unsatis-

factory," Dr. Barnes said. "The use of sugar is not new, but the way we apply it is: We pack the ulcer very full and use air-tight dressings." The irritating effect of the granules cause "local injury" and initiates wound repair processes of the body; the acidity of the sugar solution tends to increase blood flow to the ulcer area, and the acid solution also kills bacteria.

The sugar treatment is applied daily and healing of a deep ulcer takes three to four months.

Decubitus ulcers, a serious problem now, will become more of a challenge in the next decade, Dr. Barnes believes, because of medicine's ability to keep more and more chronically ill patients alive.

The cost of healing a serious bed sore can run as high as \$10,000, and one study by the Veterans Administration showed that 5% of the paraplegics with decubitus ulcers died because of those ulcers.



# Letters to the Editor . . . .

## **Smallpox Vaccination**

The Code of Virginia as most recently amended (1973) still states "every pupil shall within 10 days after entering a public or private school, furnish a certificate from a licensed physician certifying that such pupil has been successfully vaccinated for smallpox." The physician must "furnish a written statement stating that in his opinion a vaccination with smallpox vaccine is contraindicated" if he believes smallpox vaccination is no longer necessary. Forty-six states of the Union have already discontinued routine smallpox vaccination as a requirement for entrance into school, and the United States Public Health Service and the American Academy of Pediatrics state that the risks of complications from vaccination outweigh the risk of contracting smallpox in this modern era. There is now greater morbidity and mortality from the procedure itself than from the disease.

A recent poll (February 1973) of pediatricians in the State of Virginia conducted by the State Chapter of the American Academy of Pediatrics and the Virginia Pediatric Society in cooperation with Mead Johnson Laboratories reveals that 179 of Virginia's 203 practicing pediatricians (90%) have already discontinued the administration of routine smallpox vaccination. At its annual meeting in Charlottesville February 1973 the society passed a resolution approving the discontinuation of routine smallpox vaccination in children, as recommended by the American Academy of Pediatrics and the U. S. Public Health Service.

The resolution on smallpox vaccination adopted by the American Medical Association's House of Delegates November 1972 stated "physicians while observing contraindications should have the option of immunizing patients against smallpox".

It is evident that in the light of all available scientific evidence routine smallpox vaccination is no longer essential, a tribute to its past

effectiveness and to the efforts of the World Health Organization.

I would hope that the State Health Department would recognize the validity of the accumulated scientific evidence and would recommend to the State Legislature that the Code of Virginia delete smallpox vaccination as a requirement for school entrance but permit the physician to have the option of immunizing his patients against smallpox if he so desires.

I believe this approach would be more meaningful to the physician and a step in the right direction.

Very sincerely yours,  
H. WILLIAM FINK, M.D.

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## **The Election of the Governor**

It seems to me that it is the duty of all Virginians, and especially physicians, to work for the election of Mills E. Godwin, Jr., in this fall's gubernatorial election.

Everyone knows that we physicians are all conservatives in Virginia and Mills is the epitome of all we believe in. He has renounced the Democratic party and it doesn't or shouldn't matter how he runs—as an Independent or a Republican. The main thing is that he is devoted to Virginia and to its conservative form of government. He has given up the glory of living in his new home in Crittenden—a move which he so justly deserved—but the thought of the McGovern-Howell type of governor must have been more than he could stand to anticipate. He wants to save Virginia from that. Why else would he desire to be governor again?

It is widely accepted that he was the best governor Virginia has had in modern times. His accomplishments were too numerous to mention here, but if he is willing to make this sacrifice for us, the least we can do is to see that he is elected.

Mills has always been devoted to the medical profession. He will continue to be a help to us all in the days ahead of federal control of medicine. He is most grateful to all of the doctors who have played a part in his medical history. To show his appreciation to the medical profession as a whole, he gave the main address at the meeting of the Southern Surgical Association at Hot Springs in 1968. He gave an outstanding speech and he began by saying that he wanted to thank in some way the members of the medical profession in whom he had great confidence and for whom he had great respect for their outstanding service to all Virginians. He was given a standing ovation at the completion of his speech. Comments from everyone there were most glowing in their admiration of this devoted man.

He has recently recovered from a major operation and he and his lovely wife went through much soul searching during those trying days. Katherine is devoted to him and probably hates to leave her new home, but is willing to do what her husband wants to do and will be a big help to him in the campaign.

I plead with each of you to use your influence on your patients and friends. Do all you can to make certain that the medical profession, all Virginia, and you and I elect Mills Godwin to be our next governor. All of us will be well rewarded with the type of governor we want for the next four years.

Elect Mills E. Godwin, Jr. to be the next governor of Virginia! Republicans, Democrats and Independents will work together to see that this happens.

HERBERT C. LEE, M.D.

*Medical College of Virginia  
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### **What's in a Name?**

When I wrote the headline: "Are HMO's A-O.K. or S.O.B.'s?" for a recent editorial, I thought it was rather catchy.

It seemed to be a good way to talk about the HMO movement that is becoming more

common on the American medical scene. I wrote about that concept and drew an analogy between this alternate form of health care payment and services and the rent-a-car industry. Then, I sat back and waited for the responses not only from the readers of "Computer Medicine" but from the physicians who read the "Virginia Medical Monthly" and the "Medical Bulletin of Northern Virginia" whose editors also printed the editorial.

In the world of journalism, I have used the rule of thumb that says that for every "Letter to the Editor" there are 1000 readers who hold a similar opinion. I wondered what physicians thought about HMO's.

So, I waited . . . and finally it came, both in the written and spoken words: "HMO" is a dirty word. For some it certainly carries a stick of emotional dynamite with it. Many physicians not only don't like the word but misunderstand it so completely that they turn off further thought by mere sight of the letters HMO. The semantics are powerful and loaded for some with political implications.

One physician from Florida, James W. Todd, seemed to typify the response when he said, "But enough of all this Doctor; at your age if you don't know the difference between Socialism and Private Enterprise, I fear no one can explain it to you. But alas! I hope you won't write any more editorials on the H.M.O. Some of the younger doctors are still impressionable and don't know what is good for them."

I had never equated HMO with "Socialism" but some physicians apparently do and that brings me to our headline for this month, "What's In A Name?"

Dr. S. I. Hayakawa, author of *The Use and Misuse of Language* and other books, has written about the intriguing science of semantics and language. I have in my lifetime known several good examples of how innocent words got so explosive they had to be changed:

\*In World War I "German" toast had to be changed to *French* toast.

\*In the '40's the "Cooperative" Club, an international men's civic club, had its name



changed to *Sertoma* Club (an acronym for Service-to-Mankind).

\*In the '50's in the maelstrom of the Cold War and McCarthyism, the Cincinnati "Reds" became the *Redlegs*.

The "American Medical News" devoted portions of its July 10, 1972, issue to seeking a better name for HMO's, following a plea from Gordon K. MacLeod, M.D., of HEW's Health Maintenance Organization Services. Suggestions included: Health Service Organization, Prepaid Medical Care, Prepaid Health Care, Comprehensive Health Services.

Recently the American Hospital Association created the Division of Health Delivery Systems. They defined its objective and purpose: "To restructure the health delivery system in the United States to make comprehensive health services available to everyone in the most efficient and effective manner possible. . ."

So, I think I'll take Dr. Todd's advice and I "won't write any more editorials on the H.M.O. It apparently is a bad word. At best it is a nickname—but you know how nicknames stick—especially bad ones!

KEITH W. SEHNERT, M.D.

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### **Infectious Complications of Intensive Care in the Neonate**

The article in the November, 1972, issue by Kannan, M.D., and Krauss, A.M., concerning *Infectious Complications of Intensive Care in the Neonate* was read with interest. The authors appeared to have unwittingly misled readers into accepting their following hypotheses as fact:

1. A bacteriologically positive catheter tip culture implies sepsis.
2. Prophylactic antibiotics are of no value in preventing catheter-induced septicemia.

The facts on these questions remain unsettled. There are recent references which refute the information presented by Kannan and Krauss. Evidence of a low septic risk with good sterile technique in the use of catheters,<sup>1,2</sup> and the efficacious use of prophylactic antibiotics in preventing catheter-induced sepsis<sup>3</sup> make one wonder how authors Kannan and Krauss can make the statement "although prolonged insertions of umbilical catheters may be 'covered' with antibiotics, the use of these drugs does not prevent bacterial contamination or disease". The studies which the authors quoted were small in patient numbers<sup>4</sup> and in one case used the term "catheter . . . infected" falsely implying sepsis when "catheter . . . contaminated" would be more descriptive.

All one can say at this point is that the available information is incomplete as to the true septic risk of catheters. Sterile technique, topical antibiotic ointment, type of catheter, and condition of the patient are all variables which are different in each series. A double blind controlled study with rigid sterile technique alternating patients with and without antibiotics is perhaps the answer. Until then, these questions remain unproven and probably circumstantial.

PETER W. HOUCK, M. D.

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MACK I. SHANHOLTZ, M.D.  
*State Health Commissioner of Virginia*

## Oral Cancer Detection Clinics in Virginia

As an outgrowth of a federal grant to establish an oral cytology program for dentists and physicians through the Division of Dental Health of the Virginia Health Department, the Cancer Committee of the Virginia Dental Association met early in 1967 to consider the possibilities of mass screening clinics. One benefit of the oral cytology program was to reaffirm the dentists' responsibility of disease control in the soft tissue of the mouth. The often repeated adage that "physicians look at the tongue and dentists look at teeth and no one examines the tissue in between" perhaps has had merit in the past. It was this need to develop public awareness of oral cancer as a destructive and deadly disease that was the basis of the program.

The Cancer Committee was aware that independent programs in other areas of the United States had been conducted in the past which consisted of an oral examination, and infrequently the use of an oral exfoliative cytology smear. The oral "pap" smear technique, although accepted as an early diagnostic tool, was, however, only a precursor to final determination of disease through biopsy. Even the small percentage of "false negative" and "false positive" was not, therefore, readily acceptable in a mass screening clinic. The format was then established that an oral surgeon, equipped to readily offer and perform biopsies on suspect lesions, should be present and that this service would be provided free to all persons examined, if desired.

Since 1968, clinics have been conducted in many areas of Virginia, from Virginia Beach to Winchester and from Lee County to Accomac. The results have been satisfactory in each clinic. It is difficult to assess the outcome

of clinics of this nature due to the many variables that exist that are directly related to results: Weather, screening hours, site locations, day of the week, professional participation, and, paramount to them all, publicity. Although cancer remains a dread word in most vocabularies, apathy continues to play a major role in the continuance of the disease. In most instances, the indigent or medically indigent individual is not interested or concerned with preventive health care. As a result, most patients screened were persons who practice some degree of oral hygiene and who had made a small effort toward procuring professional dental care within a two-year span.

Another early problem involved communication; it was soon realized that in many areas the population was not aware of the term "oral" or "oral cancer". A change in definition to "mouth cancer" overcame the misunderstanding or mystery of the clinic's purpose. The cancer-aware individual, however, is willing to seek any assurance that he is free of the disease.

The uniqueness of the Virginia oral cancer detection program is also manifested in the high degree of cooperation among the many participating agencies. Past presidents of the Virginia Dental Association have stressed in their earliest addresses to the Association the need for continued cooperation among agencies with the program and for the responsibility of awareness of the disease in the private practitioner's office.

The Division of Dental Health, of the Virginia Health Department, has been the coordinating agency of the various sectors involved, both lay and professional. The Division assists



in determining the date for the clinic, briefing both lay and professional groups in conducting the clinic, advising the local publicity chairman in methods and means of informing the target population group, requesting participation of the local health department, and furnishing clinic supplies.

Perhaps most interesting and rewarding have been clinics in the Virginia Appalachian area where programs have been conducted for one week for each of the past three years with a volunteer team composed of an oral surgeon, oral pathologist, area public health dentists, private practitioners, professional personnel from the American Cancer Society, Virginia Division, and in 1972, 13 dental and hygienist students representing SAMA (Student American Medical Association). Traveling to a different county each day, a prime examining and biopsy-procedure location was established in the local county health department, and as many as five satellite examining centers were located in rural county areas, using space in churches, schools, drive-in theaters, town halls, jails, or whatever facility was available. Persons examined who had suspect lesions were then transported to the prime examining center for consultation and possible biopsy procedure by the oral surgeon.

The third annual oral cancer detection week for the Virginia Appalachia area, under the supervision of the Division of Dental Health, was conducted from August 7-12, 1972. Over

1,200 persons were screened, and 82 persons were referred to the team of oral surgeons. A total of 67 biopsies were performed, and 18 were diagnosed as malignant (seven basal cell, eight squamous cell, and three CA-in-situ): there were eight dysplastic lesions (3 mild, two moderate and three severe dysplasia). Patients were returned to local area Health Departments five days after clinic dates for suture removal and counseling regarding diagnosed problems and where necessary treatment plans were augmented and referrals made. In mid-October, the oral surgery team returned to the area and all patients with malignant or pre-malignant lesions or patients who required additional consultations were seen by the two surgeons from the staff of the Medical College of Virginia.

Oral or mouth cancer represents a paradox in cancer, as it is one of the easiest cancers to detect and cure, if detected early, but one of the most deadly and disfiguring if not treated in its earliest stage.

Thus the rapid course of this destructive disease makes it an emergency in its early detection and treatment. The screening clinics, offering in many instances curative treatment with total excisional biopsies or detecting patients with possible early signs of disease where a viable treatment plan can be augmented, is a step forward in providing the citizen of our Commonwealth a health care service of paramount value.

CURTIS J. KELLY, JD

## **Psychological Tests—Otologic Evaluations**

*Psychological Tests*—In addition to coverage of psychological tests when furnished by a physician or as an incident to a physician's services, the diagnostic services performed by a qualified psychologist practicing independently of an institution, agency, or physician's office are covered as "other diagnostic tests" if a physician orders such testing. A "qualified psychologist" is an individual who, if practicing in a State where statutory licensure or certification exists, holds a valid credential (as legally specified) for such practice. If practicing elsewhere, the psychologist must: (1) hold a doctoral degree in clinical psychology from an American Psychological Association-approved program in clinical psychology or its adjudged equivalent; or (2) have attained recognition of competency through the American Board of Examinations for Professional Psychology, or through endorsement by his State psychological association.

Note that there is no provision for coverage of psychotherapy performed by privately practicing psychologists. Since the tests covered under this provision are limited to those which are diagnostic, the coverage limitations on treatment for mental, psychoneurotic, and personality disorders are not applicable.

*Otologic Evaluations*—Diagnostic testing performed by a qualified audiologist is covered as "other diagnostic tests" when a physician orders such testing for the purpose of obtaining additional information necessary for his evaluation of the need for, or appropriate type of, medical or surgical treatment for a hearing deficit or a related medical problem. Thus, for example, diagnostic services performed by a qualified audiologist to measure a hearing deficit or to identify the factors responsible for the deficit are covered where such serv-

ices are necessary to enable the physician to determine whether otologic surgery is indicated. However, where the medical factors required to determine the appropriate medical or surgical treatment are already known by the physician or are not under consideration and the diagnostic services are performed only to determine the need for or the appropriate type of a hearing aid, the services are excluded whether performed by a physician or non-physician. The exact purpose of audiological diagnostic services should be capable of being determined from the audiologist's or physician's bill, and, if it cannot, the physician ordering the service will be contacted directly by the Part B carrier. Diagnostic services which meet the above requirements are covered as "other diagnostic tests" when performed by a qualified audiologist who is either independently practicing or on the staff of a clinic which is not physician-directed.

A "qualified audiologist" is an individual who, if practicing in a state where statutory licensure or certification exists, holds a valid credential (as legally specified) for such practice and who meets one of the following requirements:

(1) has been granted a Certificate of Clinical Competence in the appropriate area (audiology) by the American Speech and Hearing Association; or

(2) has completed the academic and practicum requirements for certification and is in the process of accumulating the necessary supervised work experience required for certification; or

(3) until January 1, 1970, has a Basic Certificate or provisional basic certificate and is in the process of acquiring four years of sponsored professional experience; or



(4) had a Basic Certificate or sponsor privilege as of December 1, 1964, cannot complete four years of sponsored professional experience before January 1, 1970, but passes a special examination given by the American

Speech and Hearing Association during 1969.

Note that there is no provision for coverage of therapeutic services performed by privately practicing audiologists or audiologists on the staff of a clinic which is not physician-directed.

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### **Psoriasis Treatment Combines Drugs and Irradiation**

Successful treatment of a persistent skin ailment—psoriasis—through a combination of drug therapy and radiation treatment is reported in the March issue of the *Archives of Dermatology*, a scientific journal of the American Medical Association.

The treatment consists of application to the affected skin a solution of a drug known as methoxsalen, photoactivated by blacklight, combined with a low-strength paste of another drug, anthralin.

The California research team reports that initial trials of the treatment resulted in complete clearing of the affected skin within one to three weeks.

The technique was borrowed from cancer

specialists, who have for years used a combination of chemotherapy (drugs) and selective irradiation to treat malignant neoplasms. The study involved eight adult men. Each had chronic psoriasis which had not responded to conventional treatments. Follow-up observations showed that the clearing of the skin lasted for several months with only occasional repeat treatments.

Authors of the report are two army medics, Major Issac Willis, M.D., and Major David R. Harris, M.D., from Letterman Army Institute of Research, San Francisco. Dr. Willis is now with Johns Hopkins University School of Medicine, Baltimore. Dr. Harris is now with the Veterans Administration Hospital, Palo Alto, Calif.

# Virginia Regional Medical Program . . . .

EUGENE REYES PEREZ, M.D.

## VRMP'S Accomplishments and Future

The Virginia Regional Medical Program (VRMP) has as its purpose, stimulating, expediting, and assisting in the continuing development of the best possible health care for all of the people of Virginia. To accomplish this purpose, VRMP offers its assistance to work cooperatively with all groups which are involved in the delivery of health services, the planning of health services, the dissemination of health information, the education of health manpower, the continuing development of the various health professionals, and other related manpower. The VRMP regards as its special mission assistance to programs which are imaginative and innovative and which seek to build upon the positive elements of the present delivery system. Briefly, some of VRMP's significant contributions have been:

- ... Specialized training for 9,500 nurses
- ... 21,000 requests for *medical information* have been filled through a biomedical information system funded through MCV and UVA
- ... 22 physicians have received *coronary care* training and 11 hospital coronary care units have been evaluated for effectiveness
- ... The first centralized tumor registry in Virginia has been established
- ... 22,000 physicians, nurses and emergency personnel have been trained in closed chest heart massage (CPR)
- ... 12 nursing homes have received *rehabilitation* services training
- ... 13,300 citizens have benefited from workshops in *Child abuse, electrical hazards, alcoholism, hospital education, rehabilitation, nursing, family planning, quality of medical care assurance, heart, stroke and cancer*

- ... The staffs of 4 small *community hospitals* have received personal instruction by visiting professors-in-residence.
- ... A program for *family physicians* to improve care of *stroke* patients in rural areas has been sponsored

In addition to these activities, services which began on 1 January 1973 are:

- ... Coordination of specialized training for allied health personnel
- ... Establishment of a drug consultation service
- ... Help in funding of an ongoing program of training for emergency medical technicians
- ... Training of family nurse practitioners for underserved areas
- ... Survey of continuing education needs
- ... Decentralization with local participation to bring VRMP closer to the people

The Regional Medical Program has been of great benefit to all Virginians, and has served as an effective interface between Government and the private sector. However, its future is uncertain and is scheduled to be determined in the current discussion of the 1974 HEW Appropriations Bill.

### Involvement in Health Services

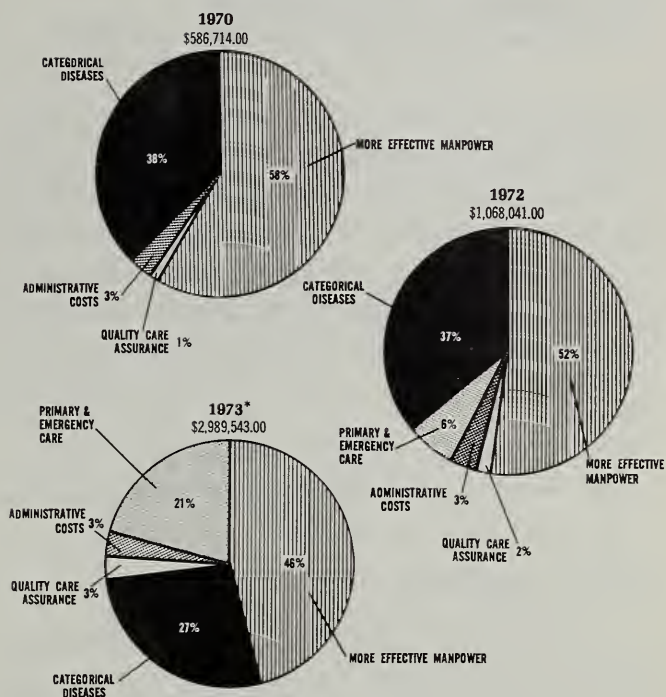
#### Planned Projects 1973

Comprehensive Kidney Disease Program.....	\$136,996
Emergency Coronary Care.....	61,311
Curriculum Development for Training	
Directors and Allied Health.....	40,986
Drug Information Service.....	139,719
Model Neighborhood Health Plan.....	95,770
Emergency Medical Technician Training	
Program .....	15,000
Continuing Education in Clinical Pharmacy.....	36,623
Subregional Medical Information Network.....	38,036



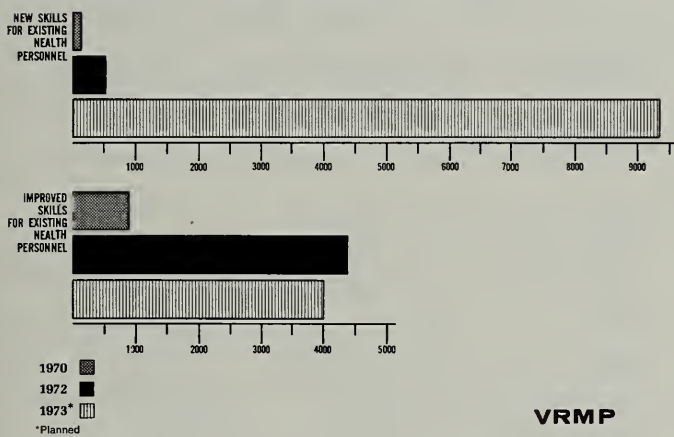
Family Nurse Practitioner Program.....	99,819
Emergency Medical Services System.....	128,045
Radiation Therapy Consultant Service.....	104,113
Nutrition Education .....	12,145
Career Mobility for Hospital Personnel.....	97,416
Expanded Role for Pharmacists .....	136,413
Perinatal Medicine for Small Community	
Hospitals .....	37,578
Continuing Education for Dentists .....	11,015
Prehospital Emergency Medical Training.....	89,434
Pulmonary Disease Rehabilitation Program.....	21,400
Preventive and Rehabilitative Training for	
the Dental Auxiliary .....	77,060
Automated Patient History .....	49,164
Obstetrix Training Program.....	67,587
Shared Services for Rural Health Care	
Institutions .....	93,261
Monitoring Quality of Care in HMOs .....	41,532
Family Education Program .....	29,818

Allocation of RMP Dollars

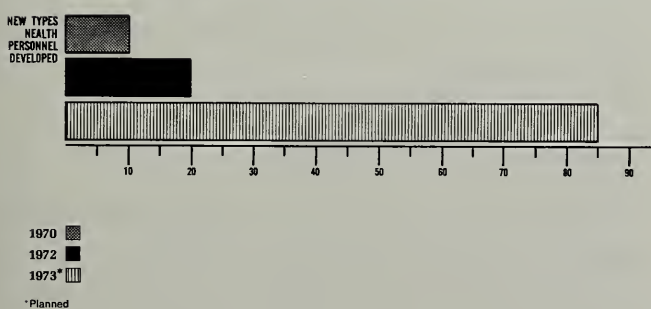


\*Planned

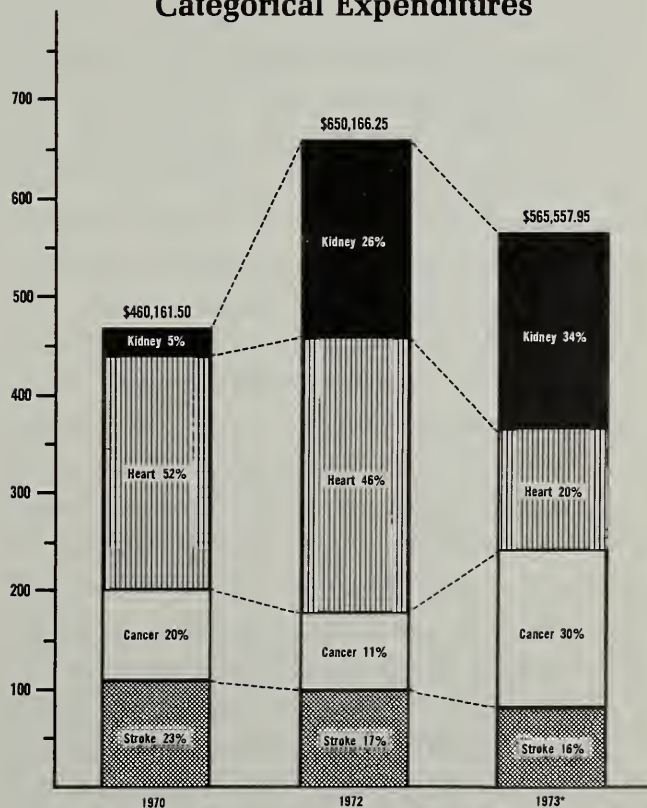
Health Providers Trained



Health Providers Trained



Categorical Expenditures



\*Planned

VRMP

# Woman's Auxiliary . . . .

*President*.....MRS. WILLIAM J. REARDON  
*President-Elect*...MRS. DONALD F. FLETCHER, JR.  
*1st Vice-President*.....MRS. WILLIAM GORDGE  
*2nd Vice-President*.....MRS. WALLACE BAKER  
*3rd Vice-President*....MRS. M. PINSON NEAL, JR.  
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*Treasurer*.....MRS. HAROLD WILLIAMS  
*Directors*.....MRS. DAVID B. HILL  
  MRS. REUBEN F. SIMMS  
  MRS. JOSEPH M. STRAUGHAN

## **Health Services**

The Woman's Auxiliary to the American Medical Association chose four target areas for its national action programs for 1972-1973. The national emphasis has been concentrated on:

### *S.O.S. (Safety on the Streets)*

Projects and programs are directed to causes of and protective measures against violence on the streets, toward defensive driving courses, bicycle and pedestrian safety, and with emphasis on getting the drunk driver off the highway. The National Safety Council puts out an excellent pamphlet called "Let's Bring Back Safety on the Streets" outlining steps for programs and reference materials available on the various aspects of street safety. The National Safety Council has branches in most major cities or may be reached at 425 North Michigan Avenue, Chicago 60611. The 16 mm film "Lady Beware" gives vital information on personal safety and should be valuable especially to young women. The film can be purchased from Pyramid Films, Box 1048, Santa Monica, California 90406. Perhaps a local business would underwrite its cost if it could be shown to school and civic groups in the community. The 16mm film "It Could Happen to You" features a policewoman showing precautions women can take to avoid assault at home, in a car, on the street. The film may be obtained at no charge from the

Film Library, National Rifle Association, 43 West 61st Street, New York, New York 10023. Good auxiliary programs should be shared with other groups and Safety on the Streets is an area of interest to everyone.

### *Ecology/Environmental Household Management*

Stress is placed on individual and group responsibility to become ecology-minded. Many of us are weary of the very subject but we must all be aware that solving the gigantic problems involved in safe-guarding our environment starts at the individual level. We cannot afford to be unaware. Hampton's Auxiliary reports having a program on "What's Happening to Our Wetlands, Shorelines and Water". Every auxiliary member can become an environmentalist. The place to start is in your kitchen and from there into your community.

### *Blood Donor Programs*

Blood donor programs remain a nation-wide source of concern. Many communities are unable to provide adequate services in this area, others have little or no reserves of blood supplies for emergencies. Auxiliaries in Virginia as elsewhere are becoming increasingly active in sponsoring blood donor drives, in becoming donors themselves, in providing volunteer services at centers and on blood-mobiles, and working toward establishment of blood banks. Some auxiliaries provide volunteer service to blood banks on a regular monthly basis and lend a valuable service to their community.

### *Hospital Day Care Centers*

Auxiliaries are invited to help solve the manpower shortage by establishing or staffing day care centers for children of persons wishing to return to work in the health care field. Day care service for volunteers assisting with



special health programs and out-patient health service programs are other facets of this program. Naturally, a need for a program should be established before one is instigated.

These interest areas widen the circle of auxiliary projects in volunteer health services given on a national scale that include rehabilitation programs, immunization programs, audio-visual testing, meals service, crisis intervention, programs to aid the elderly, mentally retarded, or physically handicapped, and a host of other services.

In a later issue, the varied activities of the Virginia auxiliaries may be reported and should be of interest to all doctors' wives across the State.

MRS. WILLIAM N. GORDGE, *Chairman*

## Health Manpower

Highlights of county auxiliaries in the Health Manpower Program:

1. A continuing education program throughout the school year.
2. Advisors to Health Careers Clubs.
3. Providing nursing scholarships.
4. Plans are being made to have a booth at County Fairs in the fall.
5. Spots on T.V. and Radio.
6. Health Careers Manual and Allied Medical Education Directory have been placed in school libraries.
7. The Virginia Health Careers and Virginia Council on Health and Medical Care have provided speakers throughout all high schools in the State.

MRS. WALLACE E. BAKER, *Chairman*

## International Health

Only a small amount of research and study into the problems of poverty and need in the world reveals so much that the mind almost becomes "boggled". In a way you feel helpless and inclined to think there is nothing you, one small person, could do that would be of any help toward easing such complex and far-away problems. But each individual doing

one small thing adds up to great things being accomplished. And that is what we in International Health are doing every day.

Many of our County Auxiliaries have a widely scattered membership, and each individual member must work individually toward a goal for their Auxiliary. We also have our cities where members can easily gather and jointly accomplish their project. But always, each *individual* accomplishment is necessary and appreciated.

We in Virginia continue working with many organizations, contributing what we can. We support our "adoptive" child through MAP. Here, each person can contribute whatever amount she desires toward the total we need to pay for a year's tuition and room and board. Interest is being aroused this year concerning Ship Hope, and the many, many things we can do to contribute to their worthwhile work. Some of our Auxiliaries have pet projects, such as orphanages, and they have worked for them, sending money or gifts. When you know specifically of a certain need it is always most gratifying to help fulfill that need. Yes, folks, bandages we still provide. Also many other small handmade items, and we work continuously on these projects. This is especially gratifying for individuals who, for one reason or another, need something they can do in their homes. International Book Project is one of the newer agencies requesting our help, and this should be a simple matter for most of us, surrounded as we are by an abundance of books. Some people have none—they need our old ones. Those instruments that seem worthless to our husbands are collected, repaired by Direct Relief Foundation, and become treasured instruments in other less fortunate countries.

With no medical training, we, the wives of doctors, are assisting in Overseas Surgery and Medicine! Doesn't that shake you awake and make you feel very important! We must continue doing our own little thing, collecting, knitting, repairing, contributing, whatever it is. For as long as there are ailing and deprived people, we will be needed. Our goal is sim-

ply to do our "little thing" toward making this a healthier and happier world for others.

MRS. F. I. CARR, JR., *Chairman*

### **Beltway Brunch**

The second Annual Beltway Brunch was held on March 12 at the Holiday Inn, McLean, Virginia. The Auxiliaries of Arlington, Alexandria and Fairfax Counties in Virginia, Auxiliaries of Prince Georges and Montgomery Counties in Maryland and The District of Columbia Auxiliary joined to hear Dr. and Mrs. John A. Chenault speak on Ampac and Medical Legislation. Dr. Chenault is a member of the AMA Board of Trustees and very well qualified to speak on some of the current legislation. He strongly urged all doctors and their wives to become aware—to know the details and possible results of the pending bills. He said he could not over-emphasize the importance of letting our legislators know how we feel. That is on a State and National level. Everyone should make sure they write as just Jane Doe—not as a doctor's wife. The Legs Program has already proved its effectiveness with thousands of letters being received. Dr. Chenault urged everyone to write their representatives in Congress to oppose the pending

Kennedy HMO Bill. As he stated, the HMO bills are all so broad and vague, it's very difficult to oppose concrete issues. Don't let the medical profession be caught through disinterest, apathy and lack of knowledge.

Membership of doctors' wives in their local Pac was the theme of Mrs. Chenault's talk. The Auxiliary seems to be lagging way behind. Maryland and District of Columbia had shown large increases with membership in the 40% to 30% category. Virginia rated only 2% although we are trying to interest more of our members in the Pac movement. It is a Bi-Partisan movement, supporting both Democrats and Republicans.

This year the Brunch attracted many Auxiliary officers: Mrs. Hazel Lewis, Assistant Director AMA Auxiliary; Mrs. Ben Johnson, National AMA-ERF Director; Mrs. Hoyt Johnson, National Legislation Chairman; Mrs. Charles Pate, Eastern Regional AMA-ERF Chairman; Mrs. Leonard Warres, Eastern Regional IHA Chairman; nine Virginia State officers and seven Maryland State officers as well as the President and President-Elect of Kentucky. Mr. James Imboden of the AMA Field Office also attended and offered help in projects of the Auxiliary.

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### **Hair in the Ear Can Cause Cough**

A hair in the ear can cause a cough. An article in the March 12th issue of the *Journal of the American Medical Association* reports on three individuals who were cured of chronic cough by removal of a small hair that was touching the tympanic membrane in the ear.

It had been known that sometimes wax in the ear, or a foreign body of some sort, or perhaps a cotton swab used to cleanse the ear, could trigger a cough. This is the first time in medical literature, however, that physicians have reported stopping a cough by removing an irritating hair.

Why does a hair on the ear drum cause a

cough? The answer is complex, involving an understanding of nerve structure and how nervous impulses can trigger the body's protective mechanisms. The cough is nature's way of clearing the airways of irritating substances. A hair on the tympanic membrane starts a reaction that sends a message to the cough centers. So, we cough.

Authors of the report are three St. Louis researchers, Allan P. Wolff, M.D., Mark May, M.D., and Douglas Nuelle, of Washington University School of Medicine. They advise physicians confronted with a patient with a chronic cough for which no cause can be found to look in the patient's ears. There just might be an offending hair.



## **Book Announcements . . . .**

**As I Remember.** By William T. Sanger. 194 pages. The Dietz Press, Inc., Richmond, 1972. Price \$10.00.

As president of the Medical College of Virginia, Dr. Sanger had as many detractors as admirers. In this little book he defends his administration of the MCV in an orderly recitation of his qualifications for the office, his goals and his accomplishments. There are supporting documents throughout the text and in ten addenda. His influence on the College was so great that these reminiscences constitute a short history of the Medical College of Virginia from 1925 to the present.

Dr. Sanger was conscious of the fact that his critics accused him of over-emphasis on brick and mortar. Indeed the reader may detect some vicarious pleasure on the part of the author as he describes the razing of fine old buildings on the campus and their replacement by new ones. Only the stately "old" school (Egyptian Building) escaped the bulldozer during Sanger's long (1925-1956) and accomplished administration.

Those who knew Dr. Sanger best admired him most. The text and addenda are replete with laudatory statements of his exceptional professional and technical training in education and his "fine qualities of mind and of heart" from those who recommended him for the presidency of the College. He lasted well, for thirty-one years. Later he was described as a "man of vision" (in spite of his obvious ocular handicaps), "industry, integrity, sincerity, and humility." The record speaks for itself. When Dr. Sanger arrived the College was in a precarious position. The Flexner report in 1910 had stimulated a reform movement in medical education and accreditation of the Medical College of Virginia was in doubt. There were indeed insufficient buildings for teaching, too little financial support, no full time clinical professors, poor organization and coordination between the schools of medicine, dentistry, pharmacy

and nursing, poor housing for students, few recreational facilities, no research activity and a curriculum rapidly approaching obsolescence. Dr. Sanger was fortunate to have the ability and time to remedy these situations. The step-by-step solution to these and other problems is recorded.

It is ironic that one generation later much of this too will be replaced. St. Philip Hall (built 1931) and Hunton Hall (1938) are scheduled for demolition to make way for a new hospital and a new medical curriculum has already replaced the one of Dr. Sanger's design. Characteristically Dr. Sanger "the man of vision" approves these changes wholeheartedly.

Included in this volume are interesting facts on Dr. Sanger's life prior to 1925; his birth in the mountains near Bridgewater; his early training (his father was a minister of the Church of the Brethren); graduate and post-graduate training; his work with the Virginia State Teachers Association and State Board of Education.

There is no index but readers may be able to locate thumbnail sketches of numerous events by perusing the table of contents. There is no effort to write history in the contemporary sense. Rather Dr. Sanger has put down items from his life which might be of interest to his family, friends, and alumni of the Medical College.

The book is published by the Alumni Association of the Medical College of Virginia.

E. RANDOLPH TRICE, M.D.

**Medical College of Virginia Before 1925 and University College of Medicine 1893-1913.** By William T. Sanger. 140 pages. Whittet and Shepperson, Richmond. 1973. Price \$5.00.

This little volume was published to compliment *As I Remember*, reviewed above. Together the two volumes purport to review the

first one hundred and thirty years of the history of the Medical College.

The book is not a history of the College but a potpourri of short sketches, vignettes, excerpts from minutes of faculty and board meetings and notes from Mr. J. R. McCauley's data book. Dr. Sanger refers the serious historian to the McCauley data book as an important source for future histories of the College.

Dr. Sanger, as might be expected, is more interested in buildings and facts than in individuals. The date of erection of each building on the Campus is listed along with the year it was demolished. In his recounting of the exodus of Southern students from Philadelphia in 1859 he gives the number of students who left the city and the number who came

to the Medical College but makes no reference to their leader, Dr. Hunter McGuire.

The section on the University College of Medicine is well written and demonstrates the advanced position this institution maintained prior to its merger with the older Medical College of Virginia. The remaining portions of the book consists of data and long lists of contributions to the support of the college, salaries paid to various employees, balance sheets, members of the board, trustees, deans of the school and forms of legacies for those who wish to include the College in their wills.

Appropriately the book is published by the Medical College of Virginia Foundation of which Dr. Sanger is Executive Director.

E. RANDOLPH TRICE, M.D.

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#### PERFORATED DUODENAL ULCER—Golden-Wangensteen

*(Continued from page 443)*

11. Jarrett, F. and Donaldson, G. A.: The Ulcer Diathesis in Perforated Duodenal Ulcer Disease: Experience with 252 Patients During a Twenty-five Year Period. *Am. J. Surg.* 123:406, 1972.
12. McDonough, James M. and Foster, J. H.:

Factors Influencing Prognosis in Perforated Peptic Ulcer. *Am. J. Surg.* 123:411, 1972.

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*Department of Surgery  
University of Virginia Medical Center  
Charlottesville, Virginia 22901*



### **Can the Cholecystogram and the Gastrointestinal Series Stand Alone as Separate Examinations?**

**S**IMPLE CLINICAL TRUTHS based on anecdote have a way of getting lost in the shuffle during this, the Reign of Laboratory Rex.

Early in the practice of radiology I became aware of the poor record of the clinical picture (history, physical examination and laboratory findings) in differentiating disease of the gallbladder and of the foregut. For some anecdotal support, I secured the cooperation of a seasoned clinician; his prior estimate of the probability of gallbladder versus peptic disease was compared with the radiologic findings. While commonly right, he erred enough to give support to the contention that the clinical picture was insufficient for differentiation of gallbladder and peptic disease.

Many patients individually come to mind who were, or could have been, harmed because the clinical picture was unreliable in differentiating gallbladder and foregut disease:

S.D. had been referred for removal of the gallstones shown on the cholecystogram accompanying him. The routine pre-surgical gastrointestinal series demonstrated an associated unsuspected carcinoma of the stomach.

H.R. had been considered to have lower esophageal disease, probably a hiatal hernia, despite the repeatedly normal gastrointestinal series. To "complete the work-up" before referral to a center for direct study of the esophagus, a cholecystogram was done, which demonstrated several small stones, removal of which caused her "esophageal" symptoms to disappear.

O.T. had undergone repair of a hiatal hernia, demonstrated on a competently executed gastrointestinal series, several years ago. Complaints continued. Another gastrointestinal series showed persistence (or recurrence) of the hiatal hernia, and the cholecystogram done at this time (the first ever done) demonstrated a few large stones, removal of which cured the patient, despite the persistence of the hiatal hernia.

S.N. had an unsatisfactory clinical course following surgery for duodenal ulcer. The pre-operative cholecystogram had been called normal. Several post-operative gastrointestinal series showed a normal post-operative state. Symptoms persisted. The cholecystogram done subsequently demonstrated a gallstone, the much smaller predecessor of which had been overlooked high in the infundibulum on the pre-operative cholecystogram.

The patients in the following groups have been so legion that their individuality has paled over the years:

Group 1. Patients followed for extended time with repeatedly normal cholecystograms with unsatisfactory clinical course; eventually, the first gastrointestinal study showed peptic disease.

Group 2. Patients followed for extended time with repeatedly normal gastrointestinal series with unsatisfactory clinical course; eventually, the first cholecystogram showed gallstones.

Group 3. Patients followed for extended time with radiologically demonstrated gallbladder disease with unsatisfactory clinical course; eventually, the first gastrointestinal study demonstrated associated peptic disease.

Group 4. Patients followed for extended time with radiologically demonstrated peptic disease with unsatisfactory clinical course; eventually, the first cholecystogram demonstrated associated gallstones.

*Moral: The Cholecystogram and the Gastrointestinal Study Should Be Done Routinely as a Combined Study in the Absence of Definite Indications for Omitting One or the Other.*

The post-fat study of the gallbladder can be done as part of the combined study as herein advocated. But what is the use of the post-fat study?

When filling defects are demonstrated, the post-fat study is superfluous. In all other cases its use should be routine, for without it important information can be lost in some 5% of all patients.

Agreement is general that filling defects within the gallbladder such as stones, polypoid lesions or Rokitansky-Aschoff sinuses are either better demonstrated, or made to appear, on the post-fat study as compared with the pre-fat.

The demonstration of an ulcer on the combined study is no reason to omit the post-fat study of the gallbladder; several patients with peptic ulcer have been encountered in whom gallbladder disease, especially cholesterosis, was demonstrated only on the post-fat study.

*Moral: The Post-Fat Study Should Be Done Whether the Gastrointestinal Series Is Normal or Abnormal.*

CHRISTIAN V. CIMMINO, M.D.

## But Aside From That Mrs. Lincoln . . .

**D**URING THE PAST FEW YEARS we have heard much about the medical care in Sweden and our political proponents of socialized medicine have quoted at length the virtues of medicine in that Scandinavian country. Statistics from Sweden have provided a ready springboard to launch



into dissertations about the supposed shortcomings of medicine as practiced in this country. Senator Kennedy, especially, must carry the figures dealing with the infant survival rate and the Swedish longevity rate in his hat for he quotes them at length whenever matters pertaining to health arise.

Last summer two American internists visited Sweden and recently published their impressions concerning Swedish medicine. Dr. John P. Lynch, of Richmond, wrote in the January issue of the *Virginia Medical Monthly* and Dr. Joseph L. Andrews, Jr., of Boston, gave a detailed account of his trip in the March 19 issue of the *JAMA*. Both articles deserve careful reading for we are destined to hear more about Swedish medicine. Fortunately their accounts supplement each other, but both give pertinent figures about the excessive cost of "womb to tomb" welfare coverage and the impersonal relationship that exists between patients and the ever changing physicians who treat them.

Dr. Lynch included his impressions about medicine in Finland and Denmark, whereas Dr. Andrews confined his lengthy article to Sweden. He pointed out that Sweden is slightly larger than California but contains less than half the population of that State. Obviously a small country with a homogeneous people can hardly be equated with any comparable activity in this heterogeneous nation of ours. There are some common denominators, however, that bear comparison.

Prior to 1955 health insurance in Sweden was voluntary. In 1955 national compulsory tax-financed health insurance was created and eight years later this was combined with various pensions and merged into the National Social Insurance. In January, 1970, the "Seven Crown Reform" was introduced, requiring an outpatient to pay \$1.40 for each visit. Beginning in January, 1973, the seven crown fee has been boosted to 12 crowns or \$2.75. Even in utopia economics has a way of raising its ugly head. The few remaining private physicians are being systematically phased out by denying them any form of hospital privileges.

There are far more hospital beds in Sweden (16/1000 as compared to 8.9/1000) than in the U.S. but in actual practice there is a long waiting list—"A patient may have to wait a year for elective surgery. This is because many wards are not open to patients due to staff shortages. . . Also open elective beds are often in short supply because many are filled by relatively well patients who would be treated on an ambulatory basis in the United States." Andrews feels that one of the most severe criticisms of Swedish medical care is the charge that every citizen "has many doctors but no doctor". No effort is made to permit the patient to see the same physician who treated him last—in fact, one gets the impression from Dr. Andrews' article that this is deliberate policy throughout Sweden.

Hospitalization is free and the patients receive compensation proportional to their incomes while in the hospital. Maternity care includes free monthly visits—but if the patient insists on seeing an obstetrician of her choice during these visits, the charge immediately becomes \$8.00. This is with the understanding that in any event he will not be present at her delivery. Uncomplicated deliveries are performed by a nurse-midwife. Dr. Andrews hastened to add “if some mothers miss the luxury of a ‘personal obstetrician’, no one objects to the results that Swedish maternal care produces—lowest infant mortality in the world.” This has the old familiar Chippaquiddick ring but the writer was not prepared to learn that midwives perform most of the deliveries—this will have to be discussed privately with obstetrical colleagues.

Dr. Andrews was favorably impressed by the well-staffed city ambulance service which utilizes local firemen. This is not unique, for in 1930 the Baltimore ambulances were staffed by city firemen who moonlighted as medical attendants. Only a few of the many items disclosed by our recent visitors to Sweden can be dealt with in this article but one deserves mention in closing—is it all for free or does someone have to pick up the tab? Sad to relate it is far from “free”. Twenty-eight percent of Sweden’s budget goes to welfare and health care—about twice as much as is spent on either education or military expenses. The social costs are increasing at the rate of about seven percent per year. The local county councils (supervisors) spend 78% of their total budget on medical care. This is an eightfold increase during the past 12 years.

Where does the money come from—or need we ask? Dr. Andrews gives an example of a married man, earning \$4,000 a year, who will pay 41% of his income in total taxes. A comparable person in America probably would not pay any federal tax. The clincher would come to the same man in the \$10,000 bracket. In Sweden he would pay 60% of his income to finance these “free” services. The writer does not minimize the present tax structure in this country but the \$10,000 a year man here would probably pay about 10% to the federal government.

Can we get these simple facts of life across to our legislators before they carry us farther down the welfare and socialized medicine lane?

H.J.W.



## **Calendar of Events**

PRECEPTORSHIP TEACHING WORKSHOP—University of Virginia Family Health Center and Howard Johnson's Motor Lodge—Charlottesville—May 18-19, 1973.

VIRGINIA HEART ASSOCIATION—Scientific Sessions for Physicians—Sheraton Motor Inn—Fredericksburg—May 22-24, 1973.

SPRING FORUM FOR CHILD PSYCHIATRY—Sponsored by Virginia Treatment Center for Children and Division of Child Psychiatry, Medical College of Virginia—Richmond—May 25, 1973.

ANNUAL ORTHOPEDIC ALUMNI SEMINAR—University of Virginia Medical School Auditorium—Charlottesville—May 31, 1973.

ANNUAL ORTHOPEDIC RESIDENTS PAPERS—Sponsored by Division of Orthopedic Surgery—Medical College of Virginia—Richmond—June 1, 1973.

E. C. HAMBLÉN SYMPOSIUM IN REPRODUCTIVE BIOLOGY AND FAMILY PLANNING—Sponsored by Department of Obstetrics and Gynecology, Duke University Medical Center—Durham, North Carolina—June 8-9, 1973.

AMERICAN MEDICAL ASSOCIATION—Annual Meeting—New York—June 23-28, 1973.

NATIONAL CONFERENCE ON PHYSICIANS AND SCHOOLS—Sponsored by American Medical Association—LaSalle Hotel—Chicago—October 4-6, 1973.

THE MEDICAL SOCIETY OF VIRGINIA—Annual Meeting—Holiday Inn/Scope—Norfolk—October 18-21, 1973.

SOUTHERN MEDICAL ASSOCIATION—Annual Meeting—San Antonio, Texas—November 12-15, 1973.

AMERICAN MEDICAL ASSOCIATION—Clinical Session—Anaheim, California—December 1-5, 1973.

CONFERENCE ON TEAMWORK FOR THE HANDICAPPED CHILD—Sponsored by the Virginia Council on Health and Medical Care—Hilton Inn—Virginia Beach—December 9-11, 1973.

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The Medical Society of Virginia maintains a registry of medical meetings and programs of interest to Virginia physicians. You can help by keeping us advised of any meetings scheduled in your area. This will not only help others avoid conflicts but also provide helpful information on opportunities for continuing education.

## **New Members.**

The following members were admitted into The Medical Society of Virginia during the month of February:

Hamid M. Al-Abdulla, M.D., Richmond  
Harry Carl Beaver, M.D., Falls Church  
James Curtis Drye, M.D., Richlands  
Arthur S. Gear, Jr., M.D., Richmond  
Jerome D. Gorman, M.D., Roanoke  
Charles Henry Henderson, M.D.,  
Harrisonburg  
Mohammad Aminul Islam, M.D., Norfolk  
Mehd Jandaghi, M.D., Dumfries  
John Robert Jones, M.D., Richmond  
Philip R. Littleton, M.D., Springfield  
Antonio M. Longo, M.D., Alexandria  
Jeffrey S. Malka, M.D., Burke  
Keith Winston McLarnan, M.D., Fairfax  
Richard H. Moseley, M.D., Newport News  
Robert S. Jeff, M.D., Norfolk  
Ana Maria Perez, M.D., Radford  
G. V. Reddy, M.D., Richlands  
Edmund J. Schmidt, M.D., Blacksburg  
Eric John Sorenson, M.D., Lynchburg  
Lewis John Turner, Jr., M.D., Warrenton  
George S. Vouvalis, M.D., Arlington  
Hsin-Hsiung, M.D., Richmond

## **Dr. Richard E. Palmer,**

Past president of The Medical Society of Virginia, Alexandria, has been named president-elect of the International Academy of Pathology (United States-Canada Division).

Dr. Palmer is currently a member of the Board of Trustees of the American Medical Association.

## **Dr. M. Pinson Neal,**

Richmond, has been named to the newly established position of VCU provost. The position will be an extension of the president's office with responsibility to the president for the coordination of the activities of the vice president for health sciences and the vice president for MCV hospitals.

Dr. Neal has also been named to represent Virginia as Councilor on the governing body of the South Medical Association.

## **Dr. J. Shelton Horsley, III,**

Charlottesville, has been named as the first American Cancer Society Professor of Clinical Oncology at the University of Virginia.

## **Dr. A. L. Herring,**

Richmond, has been named chairman of the Advisory Group for Grace Hospital, one of three Richmond hospitals owned and operated by Charter Medical Corporation.

## **Medical Unit Cited by Fifth Naval District.**

Captain Robert E. Mitchell, Jr., Medical Corps, USNR, commanding officer of Naval Reserve Medical Company 5-2 in Richmond, has been presented the Trophy for the best non-pay Reserve unit in the District. The company also received a Unit Citation for maintaining a high degree of mobilization readiness during 1972, including an outstanding record of attendance.

## **Dr. Samuel Newman,**

Danville, will celebrate his 83rd birthday and 50 years of pediatric practice in June of this year. When he began his practice in Danville the only other specialist there was an eye, ear, nose and throat man and there was no American Board of Pediatrics. Dr. Newman was the first one to ever use insulin; he was the first to use intravenous fluids and had to make it in his office; he pioneered in the diagnosis of pyloric stenosis; he established the first blood bank in Virginia and administered the first blood transfusion in a child in Virginia.

Dr. Newman has treated thousands of children and he does not see his 83rd birthday as a stopping point. In fact he is wondering what he will do when he reaches "middle age".

## **Location Available.**

1800 square feet, 7834 Forest Hill Avenue, Huguenot Medical and Professional Building, Richmond. Interior to be completed to lessee's plans. Call 272-1314 for full details or write Dr. George R. Smith at 7834 Forest Hill Avenue, Richmond 23225. (*Adv.*)



# **Obituary . . .**

## **Dr. Samuel Enoch Weymouth,**

Callao, died March 26, at the age of ninety-six. He graduated from the former University College of Medicine, Richmond, in 1901 and was the last surviving member of his class. Dr. Weymouth served as assistant surgeon to the U. S. Public Health Service and as medical advisor in the selective service system for eight years. He had practiced in Northumberland County for fifty-five years, retiring from practice in 1961. Dr. Weymouth was the oldest member of the Henderson United Methodist Church of Hyacinth and of the Heathsville Lodge No. 109 AF&AM of which he had been a member for sixty-nine years.

Dr. Weymouth had been a member of The Medical Society of Virginia for sixty-nine years.

## **Dr. Charles Carroll Smith, Jr.,**

Formerly of Norfolk, died in Oklahoma City on January 27. He was eighty-one years of age and graduated from the former University College of Medicine, Richmond, in 1912. Dr. Smith practiced in Norfolk until his retirement when he moved to Oklahoma to be with his son, Dr. Edwin Ide Smith. He had served as chief of the surgical service at DePaul Hospital and also as president of the medical staff. Dr. Smith was a past president of the Norfolk County Medical Society and had been a member of The Medical Society of Virginia for fifty-eight years.

Besides his son, Dr. Smith is survived by two daughters.

## **Dr. Clayton Willard Eley,**

Norfolk, died March 19, at the age of eighty-two. He received his medical degree from the University of Pennsylvania in 1916.

Dr. Eley located in Norfolk in 1928 for the practice of radiology. He was senior radiologist at Norfolk General Hospital and Leigh Memorial Hospital before his retirement. Dr. Eley served in the Medical Corps of the United States Navy during World War I. He was a former president of the Norfolk County Medical Society, the Eastern Radiological Society and the Virginia Radiological Society. He was a Master Mason, Royal Arch Mason, Knight Templar, Shriner and member of the Royal Order of Jesters. Dr. Eley had been a member of The Medical Society of Virginia for fifty-two years.

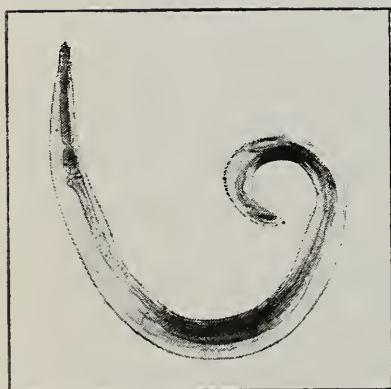
He is survived by two sons.

## **Dr. James Levi Thomson,**

Norfolk, died March 3 following a heart attack. He was sixty-three years of age and graduated from the College of Medicine of the University of Cincinnati in 1934. Dr. Thomson was a nationally known neurosurgeon and had practiced in Norfolk since 1945. He was the organizational and first president of the Neurosurgical Society of the Virginias and the first neurosurgeon in Tidewater. At the time of his death, Dr. Thomson was vice president of the staff and chief of neurosurgery of Norfolk General Hospital and chief of neurosurgery at DePaul Hospital. In 1959 he was cited by the President's Committee for the Physically Handicapped for his contribution in obtaining jobs for the handicapped in Virginia while a member of the Medical Advisory Board of the State Department of Vocational Rehabilitation. During World War II he served as neurological surgeon for the 45th General Hospital for the Army. Dr. Thomson had been a member of The Medical Society of Virginia since 1946.

His wife, a son and daughter survive him.

# Pinworm therapy is often a family affair



**Contraindications:** History of hypersensitivity to thiabendazole.

**Warnings:** If hypersensitivity reactions occur, drug should be discontinued immediately and not resumed. Rarely, erythema multiforme has been associated with thiabendazole therapy; in severe cases (Stevens-Johnson syndrome), fatalities have occurred. Because CNS side effects may occur quite frequently, activities requiring mental alertness should be avoided. Safe use in pregnancy or lactation has not been established.

**Precautions:** Ideally, supportive therapy is indicated for anemic, dehydrated, or malnourished patients prior to initiation of anthelmintic therapy. In presence of hepatic or renal dysfunction,

patients should be carefully monitored.

**Adverse Reactions:** Most frequently encountered are anorexia, nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddiness, and headache have occurred. Rarely, tinnitus, hyperirritability, numbness, abnormal sensation in eyes, blurring of vision, xanthopsia; hypotension, collapse; enuresis; transient rise in cephalin flocculation and SGOT; perianal rash, cholestasis and parenchymal liver damage; hyperglycemia; transient leukopenia; malodor of the urine, crystalluria, hematuria; appearance of live *Ascaris* in the mouth and nose. Hypersensitivity reactions



## Guest Editorial . . . .

### Why the Difference?

**F**ROM LETTERS coming to my office and to members of our Medical Advisory Committee, and numerous conversations with physicians, there appears to be a lack of understanding as to how and why our Fee Schedule is different from others. To find some of the answers, or to at least explain, one must become familiar with the history and development of the Vocational Rehabilitation program.

The 1920 Virginia General Assembly enacted State legislation to provide vocational rehabilitation services to disabled adults, a few months prior to the enactment of Federal legislation. Vocational Rehabilitation started with a goal which continues today: to assist a disabled individual in obtaining the services needed to enter, remain in, or return to gainful employment. Vocational Rehabilitation was not designed as a welfare oriented service program nor is it so designed today. While the program does serve many disabled welfare recipients, its focus is on preventing such dependency in the first place. From a practical standpoint, to say nothing of human values involved, prevention of dependency is much less costly.

The individuality of the Vocational Rehabilitation service delivery program also needs to be emphasized. Rehabilitation services are provided to an individual on the basis of the individual need after proper medical, including psychiatric, psychological, social and vocational assessment and evaluation. Most services are based on the needs of the individual, with full consideration of all other resources available to the individual. As stated above, an individual is not required to be at the economic level of public assistance before assistance is provided.

The Vocational Rehabilitation program has grown considerably since the small beginning in 1920. In Virginia during the fiscal year ending June 30, 1972, there were 33,566 disabled individuals in active service status. Of this number 12,221 were placed in gainful employment, 1,994 were closed as non-rehabilitated, and 18,351 were in active status at the end of the year. Despite these impressive figures, it is estimated that less than one-third of the disabled who could be returned to employment are presently being served.

The growth in the number of rehabilitation clients has, to a large extent,

been the result of improved medical care during the past four decades. With the introduction of the sulfa drug and the antibiotics during the 1930's and 1940's and the improved surgical procedures, many lives have been saved, some have remained disabled. During World War II, and since that time, vocational rehabilitation techniques have improved to a point that many of the more severely disabled persons now have a reasonable opportunity to be restored to useful lives.

Physical restoration was not a part of Vocational Rehabilitation in the original Act—the goal was vocational adjustment only. Any physical restoration needed had to be provided by the family or by charitable organizations. It was as late as 1943 that the Federal law permitted Federal funds to be used for limited physical restoration. In fact, the initial law provided for a maximum of 90 days for hospitalization.

Over the years the limitations on medical services have been gradually relaxed but always within the original concept. This original concept was that medical and surgical treatment needed by an individual would be limited to those required for initial placement into employment with the expectation that after employment, the individual would be able to take care of his own medical needs. Again, neither the agency nor the physician considered a disabled individual as a pure charity case; actually, the physician accepted a fee below the usual to help the individual re-enter employment and because of the severe limitation of the Vocational Rehabilitation budget. The services of physicians of the Commonwealth are most gratefully recognized, and in fact these services are frequently the key to successful rehabilitation.

As Vocational Rehabilitation slowly expanded in the 1940's, 1950's, and 1960's, there developed an unwritten understanding and a fellowship of endeavor between the dedicated physician and the dedicated rehabilitation counselor to serve disabled individuals and restore them to employment. Although funds for physical restoration services were severely restricted, rarely were there complaints over fee schedules. Perhaps this was due to the fact that persons with the more severe disabilities requiring extensive medical and surgical procedures were not too frequently accepted for vocational rehabilitation. However, as rehabilitation techniques have been improved and we have realized that the severely disabled also have a good chance for work, we have gone deeper into the barrel of disabilities.

Vocational Rehabilitation now finds itself in a dilemma: at no time in the history of the program has the physician been more important to the over-all services, while at the same time our fiscal resources are such that only by help from the physician can we serve the more severely disabled. Those individuals covered by insurance, by Medicare and Medicaid present no problems to us since these resources are used; but they represent only a small percentage of our clients. Most rehabilitation clients do not have such resources themselves nor do their families. What to do with these disabled, who must have physical restoration services if they are to also receive training and other services to become employed, is the problem.



Our Medical Fee Schedules are arrived at in consultation with our Medical Advisory Committee, whose main function is advising us on general medical policy matters. They are members of the Rehabilitation Committee of The Medical Society of Virginia. We use a Relative Value comparable to Blue Cross-Blue Shield for medical and surgical procedures, with a unit value comparable with those of the 7500 Series of Blue Cross-Blue Shield. These fees are generally less than the usual and customary fee paid by some other agencies and insurance companies.

Private insurance companies and most State-Federal agencies in the medical field have "open ended" financing—that is, funds are available to pay whatever cost is determined. Vocational Rehabilitation, on the other hand, has a "closed end" budget—that is, we have a specific amount of Federal and State dollars, and there are no more for any given fiscal year. This simply means that we must operate within a specified budget amount and, therefore, must allocate a specific amount of expenditures for each category of services. Due to this restricted budget for medical services, the payment of usual and customary fees would decidedly limit the number of physically handicapped individuals we could serve as well as the severity of physically handicapping conditions.

This report to you resolves itself into a plea for understanding and your much needed help in serving the disabled citizens of Virginia.

I am sure I can hear some say, Commissioner Russell is too idealistic—he is living in a dream world. But from a practical standpoint, I know of no greater personal satisfaction that any of us can have than to watch the restoration of a depressed, defeated, disabled person in his return to a productive life. He benefits, his family benefits, and society thereby reaps great benefit. What is the alternative to rehabilitation? Probably institutionalization or, at best, public assistance.

DON W. RUSSELL, *Commissioner*

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*Department of Vocational Rehabilitation  
4615 West Broad Street  
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# Management of the Keratoplasty Patient

WALTER MAYER, M.D.  
Richmond, Virginia

**Proper pre- and post-operative care of keratoplasties probably has more to do with eventual results than the operation itself.**

**T**HOSE OF US who come in contact with a new generation of residents every year, eager and anxious to try their hand at a keratoplasty at the first opportunity, have learned by experience that the proper management of the patient before and after surgery while not nearly as glamorous as the surgery itself, probably has more to do with the eventual results than is apparent to the occasional corneal surgeon.

This paper will deal with those therapeutic measures which we feel assure us the greatest number of clear grafts. Naturally the steps we will outline are my personal preferences and are probably not the measures other corneal surgeons would follow routinely in their cases, but in order to get as systematic an approach to a problem of management as possible, it would be impossible to discuss all the different ideas from different surgeons. We will not discuss general indications for keratoplasties, neither will we discuss all the multiple complications which can arise. The limited time we have for our presentation will not allow us to discuss every point we consider significant and while each topic is listed on the slides we will limit our discussion to those topics we consider the most important ones.

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From the Department of Ophthalmology, Health Science Division, Virginia Commonwealth University.

Presented before the Virginia Society of Ophthalmology and Otolaryngology, Williamsburg, May 11, 1972.

Proper management of keratoplasties can be divided into three different stages:

- A. The Preoperative Phase
- B. The Immediate Postoperative Phase from 1-14 days
- C. The Long Term Postoperative Phase from 15 days to 3 months

## A. Preoperative Phase

1. *Availability of patient and surgeon:* Once the patient is scheduled for a transplant, it behooves the surgeon to keep his name, phone number and other pertinent information in his wallet at all times. The hard working people at the Eye Bank deserve to know when they call us in the middle of the night if we will actually use or not use their eye. We don't have to operate in the middle of the night, but we should know whom to call to come to the Hospital. In the same vein, as management of a keratoplasty is such a personal affair, in my opinion, no graft should be done unless the surgeon himself will be in town and available for at least three weeks. The psychological make-up of the patient about to undergo a keratoplasty becomes dependent of the surgeon, and we can do no less for him than to reassure him we will be available in his hour of need.

2. *Glaucoma control:* Unless a pre-existing glaucoma is under control, either by medical therapy or previous surgery, there is no point in even attempting a keratoplasty. They will all fail and should not be undertaken under any circumstances.

3. *Preoperative treatment of vascularization:* If the vascularization is superficial, beta therapy can be attempted. In cases of severe superficial and deep vascularization, a preliminary peritomy with actual cutting and cauterization of the vessels and resuturing to the



sclera 3-4 mm. behind the limbus can be done, either as a preliminary procedure or at the time of the penetrating keratoplasty. In cases of massive vascularization, I personally prefer a preliminary lamellar tectonic graft with a glycerine dehydrated cornea to be followed eight months later by a penetrating fresh graft.

4. *Preoperative steroids:* While steroids systemically play a great role in the overall management of the keratoplasty patient, it is our feeling that only in cases of sympathetic ophthalmia, where flare-up can occur at any time, would we be justified in placing a patient on a maintenance dose of steroids several weeks before the planned keratoplasty.

5. *Special measures in aphakia:* It is well known that the technique of keratoplasty in these cases is considerably more complicated and many of these cases following surgery will reveal an elevated intraocular tension. The possible loss of vitreous and probable vitreous touch with the newly transplanted endothelium can have disastrous results; therefore, everything should be done to decrease the vitreous tension: carbonic anhydrase inhibitors, oral glycerine, vitreous removal either by pars plana approach or direct withdrawal through the pupil in those cases where the hyaloid is already broken. The use of either a Flieringa ring or a Bonnacolto-Flieringa ring is, of course, essential for the satisfactory performance of surgery under these circumstances.

6. *Special measures in combined cataract and keratoplasty cases:* While personally not in favor of these procedures, as they entail more danger to the eye than a keratoplasty followed by a cataract extraction six to eight months later, in those cases where it has to be done, either intentionally or where a rather hypermature cataract suddenly becomes subluxated and pushes forward in a keratoplasty, the same considerations as in cases of aphakia apply. Attempt to decrease the intraocular pressure, use a Flieringa ring and, if needed, do an anterior vitrectomy when vitreous has been lost and is freely in the chamber.

7. *Preoperative topical medication:* Unless

a combined procedure is contemplated, we feel that all pupils should be constricted prior to surgery and our personal preference are drops of 4% Pilocarpine instilled into the eye to be operated every 15 minutes for about four hours before surgery. A miotic pupil is always a better protection for a clear lens against any accidental injury by the trephine or the scissors completing the graft incision, but in our opinion it also allows a better centering of the trephine, especially in those cases of keratoconus where the apex of the lesion is quite deviated from the geometric center of the cornea. A further exception to the constriction of the pupil is the few cases where a rotating autograft may take care of the problem. In those cases we want the pupil to be as normal as possible, so that we do not place the suture line through the pupillary axis.

8. *Biomicroscopy of the donor eye:* Not only from a legal standpoint, but it just makes plain old sense to look at the eye before using it for a penetrating graft. I do not believe it is enough to take the word from the Eye Bank that the globe is suitable for a keratoplasty. Their surgical director may have overlooked something of importance and any corneal surgeon owes it to himself and his patient to convince himself that he is really using suitable material. It is amazing to see how many eyes are picked up at the Eye Bank, taken to the operating room and never examined with a slitlamp before the fateful trephine incision is made into the recipient cornea.

## **B. Immediate Postoperative Phase: 1-14 days**

1. *Monocular or binocular patching:* The classical studies of Dunnington and Reagan have demonstrated how long a corneal wound needs to heal and the fact that the epithelium can slide and cover a defect within 24 to 48 hours, may give us a false sense of security. It would seem only natural to us that if proper position of the graft, particularly in relation to its posterior edge is so important, a good case can and should be made for a binocular patch for the first four days. This

is easily tolerated by elder as well as very young patients, and it certainly assures us of the utmost ocular rest during the first 96 hours. Tranquilizers can be prescribed during this period, but usually are not needed, especially if we are also firm in keeping visitors to the absolute minimum of the immediate family.

2. *Bed rest and ambulation:* A natural corollary from the above heading of the bilateral patching for four days is that during this time we keep our patients in bed. Some reassuring words usually is all that is needed to get the patients to accept this small discomfort and by letting them turn from a nose to ceiling position to the unoperated side while at the same time elevating the head of their bed 30-40 degrees and letting them move their legs will usually make them comfortable. While an occasional male patient may have some prostatic difficulties, we will allow him occasionally to stand by the side of the bed to void, while in other cases if even this produces too great an amount of straining, we will use an indwelling catheter.

3. *Postoperative photophobia and blepharospasm:* Personally we are convinced that the proper dressing of the keratoplasty patient and careful attention to his great photophobia and blepharospasm are probably the most important steps we can take in the early postoperative phase. Nothing is more important than to treat the patient's eye with the utmost gentleness during the first few dressings and any time spent doing it is well worth it. Personally I dress my patients only every two days, which gives us a good enough indication of how things are going along and still does not traumatize the eye any more than necessary. During the first 10 days no dressing should be done hurriedly by a surgeon running behind in his schedule. He should and must take plenty of time for these patients. As they all have marked photophobia, the room can be moderately dark and the overhead light should certainly be turned off. As the sutures will produce some blepharospasm, it is important to avoid it as much as possible and we like to follow these steps: When we start

working on the patient, we ask him to open his mouth and to keep it open during the entire dressing. It is extremely difficult to squeeze one's lids when the mouth is wide open. As I am a firm believer of a tight patch, regular adhesive, rather than the more modern paper tapes should be used. Removing the adhesive could be another reason for squeezing. By cutting the adhesive close to the patch overlying the eye, no actual pulling of the skin is ever done and another reason for squeezing is avoided. The rest of the adhesive can be left on the cheek and forehead until the fourth day, when the unoperated eye is left open, and then removed with carbon tetrachloride. Before we ever even look at the eye, we will instill Ophthetic or some other anaesthetic into both eyes repeatedly over a period of about two minutes and only then will we inspect the operated eye, first without a light and then when the patient can keep both of his eyes open using a flashlight. Clarity of graft, depth of chamber and position of sutures is all that is required in this inspection and if everything is OK, the flashlight can be turned off again to the great relief of the patient, who then can be allowed to close his mouth again, or that can wait until the topical medication has been instilled and the binocular patching started again. A tight dressing which will not allow the patient to open his eye will help make the patient more comfortable and keep the graft where it should stay.

4. *Postoperative antibiotics:* I keep my patients on a broad spectrum antibiotic for five days postoperatively, more for a possible legal complication than out of a firm conviction that we are really doing any good at all. It is amazing that we do not hear any more about postoperative infections as all eyes are bound to be contaminated no matter how hard we try to keep them sterile after postmortem enucleation.

5. *Systemic steroids: How Long?* All patients are routinely placed on Medrol Medules 4 mgm. q 8 hours from the first postoperative day. Over a period of about three weeks we will usually decrease the dose to 4 mgm. daily,



but may continue this maintenance dose for several months in those cases where we were dealing with a vascularized cornea to start with or if there are any signs of corneal edema or haze. In cases where there are absolutely no inflammatory signs, we will usually stop systemic steroids after about eight weeks.

6. *Topical medications:* During the time the patient is in the hospital and his eye is left open after removal of cardinal sutures, we like to dress these eyes with atropine and a steroid and use these in ointment form while the patient still wears a patch, but switch to Mydrapred drops once the operated eye is left open. While the patient is wearing a patch over the operated eye only, we instill medications which will assure that the patch is always firm and tight. I do not believe that anyone but the surgeon should remove the patch to instill medications and I have seen too many dislocated grafts when medications are ordered around the clock with the understanding that a patch should be replaced.

7. *Midriatics in Keratocornus:* This is an exception to the above. For some reason, possibly related to the thinness of the entire recipient cornea and increased pressure of the sutures over the peripheral iris, some post-keratoconus cases develop a pupillary paralysis which persists for life. Therefore, in Keratoconus cases only Homatropine should be used and rather sparingly to prevent this unfortunate complication.

8. *Carbonic anhydrase inhibitors:* We do not advise the use of them routinely in all postoperative cases, but rather in all cases of aphakia and combined keratoplasty and cataract extractions. In those cases we feel they should be continued for several months until the eye is white and all topical medications, especially midriatics, have been discontinued.

9. *Clouding of graft in early stages:* Except in very rare circumstances, early clouding of the graft is probably more a technical surgical problem than any reaction to the graft. Under normal circumstances the graft should be perfectly clear whenever we change the dressing,

lustrous and well in place. Unless there is an overwhelming graft rejection, all the other degrees of edema and slight haziness are technical pitfalls, either due to faulty donor material, faulty position of the sutures or improper alignment of the graft edges. We will try to treat these cases of haziness with extra doses of steroids and more topical antibiotics and possibly some hypertonic sodium chloride ointment, but our general feeling is that if a graft is not clear at the beginning, very little hope remains that it will ever clear and be satisfactory. If we have a graft which is not completely clear, most of us will try to be optimists and hope for the best, but it probably would be much better to deal with the problem effectively and vigorously from the start, as advised by Joaquin Barraquer, who will not hesitate to remove a cloudy graft three or four days after surgery and immediately substitute it with a fresh graft.

### **C. Long Term Postoperative Phase: 14 days to three months**

1. *Removal of sutures: cardinal and baseball:* Suture removal is one of the critical steps in the postoperative management of keratoplasties. For simplicity, we will assume that most surgeons now use a limited number of cardinal silk sutures, usually of the 8 o size, combined with a baseball suture of 10 o Ethilon. This last suture, of course, is beautifully tolerated and can be left in place for several months if it does not become loose. Personally, except in most unusual cases, we now use only four silk sutures, as they are always more irritating, attract more mucus and can eventually attract some neovascularization. It, therefore, is imperative to remove these silk sutures at the earliest moment it is safe to do so, which usually is after the first 14 days. If the removal of sutures is done with the same precautions as the first dressings, unhurriedly, with plenty of topical anesthesia, it usually is an easy procedure. If one of the cardinal sutures is still very tight, it is best to leave its removal for a few days later. The same technique, which has routinely applied to cataract

sutures, applies to those in keratoplasties. The suture should always be cut before it is picked up with forceps, and if the unfortunate mishap of accidental loss of the chamber occurs at this moment, any further attempts at suture removal should be stopped and a tight pressure bandage applied. Usually within two days the chamber will be reformed and the minimal damage will have been repaired. Of course, the fact that now we usually have a baseball suture of Ethilon in place prevents in most cases the collapse of the chamber. However, should the chamber be collapsed or worse yet, if an incarceration of iris should occur, the patient should be immediately taken back to the operating room for resuturing. Another problem which may occur at the time of suture removal may be some overriding of the graft edge, but we will deal with this under a separate heading. The Ethilon suture usually is removed either totally by cutting every arm of this suture at one time or at different times piecemeal.

2. *Topical steroids:* As mentioned in the early postoperative phase, we use them routinely at the beginning combined with a midriatics and after the eye whitens and is quiet, we will continue using them two or three times daily probably for about three months. We will not hesitate, in those patients where some vascularization of the graft edge appears or where some other inflammatory signs persist, to continue using a maintenance dose of one drop of steroid daily sometimes for years.

3. *Subconjunctival steroids:* In those cases of keratoplasties where we are dealing with an extremely vascularized host cornea, we probably do well in using subconjunctival steroids almost prophylactically, but certainly whenever signs of neovascularization of the graft appear. We should, however, distinguish between a vessel which reaches to the graft edge and then runs along the graft edge and a vessel which actually penetrates into the graft itself. It is this last possibility which will make us use subconjunctival steroids. Personally we prefer Depro Medrol which usually lasts from 12-14 days before another injection has to be

given. As these subconjunctival injections are irritating to the eye, I believe it is best to postpone them for at least three weeks after surgery, after which time the eye usually is again quiet enough to accept the added trauma of a subconjunctival injection.

4. *Overriding edge:* An overriding edge in one sector of a graft can occur immediately due to faulty suturing, but is usually found a few days after suture removal, especially in those cases where no Ethilon continuous suture is being used. In most cases nothing needs to be done, maybe a slight pressure dressing for a few days and at other times just patience is all that is required. Unless there is actually a leakage of aqueous, we feel that "benign neglect" is the best therapy and most of these cases will clear up quite nicely without any further trauma induced by us. It will take longer for these eyes to quiet down and be ready to be fitted with glasses or contact lens, but undue alarm and resuturing when not absolutely necessary can do more damage to the survival of the graft. It is imperative to eliminate any additional surgery and it is amazing to observe how even some cases of severe overriding eventually settle down allowing a quiet eye with good acuity.

5. *Graft reaction:* The typical graft reaction, *maladie de la greffe*, as the French call it, and on which we used to blame each and every one of our cloudy grafts, is a distinct possibility in any penetrating graft, particularly in those cases where we are dealing with a very vascularized host cornea. It can appear at any time from a few months to many years following the surgery and is manifested by large amounts of edema, thickening of the graft, folds in Descemet's and marked reduction in acuity. Massive doses of steroids systemically, topically and subconjunctivally are required to return the graft to normal and occasionally we are able to do this. A strong point can be made to keep patients who have gone through such a clear episode of homograft reaction on either one drop of a topical steroid suspension daily or even a small maintenance dose of systemic steroid.



6. *Regrafting*: If everything has failed and a decision has been made to regraft again, our personal preference is to wait about eight to 12 months before another surgical procedure is attempted, unless the circumstances are such,

as for example in an only eye, that something has to be done sooner, which probably should, however, not be sooner than six months.

*404 Professional Building  
Richmond, Virginia 23219*

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## Fishing

Fishing is good therapy—both physical and emotional—says the American Medical Association.

The millions of Americans who head for the lakes and streams across the nation each fishing season don't need a doctor to tell them fishing is relaxing. They probably have seen the doctor sitting in the next boat with a line in the water.

Fishing can be elaborate, complete with trip to the seashore and renting deepsea boats and equipment. Or it can be the cane pole and worms affair on the banks of a neighborhood creek. Either way it gets us out in the fresh air and sunshine, gets our minds off the cares of the day.

Unless you are the vigorous type who wades through racing rapids or rows hard for miles, fishing is only mild exercise. Fishing is good for the body and spirit. But fishing has some built-in hazards. The most common fishing accident is catching a barbed hook in the flesh, usually a finger or hand, but sometimes a leg or other parts of the body. Lures and hooks

left unprotected on a dock or on the bottom of a boat cause many of these accidents. The wise fisherman shields the hook. Stick a small cork over the barbed point. Store lures in the tackle box until needed; return them to the box when removed from the leader. The band of your favorite fishing hat, of course, is a reasonably safe place to keep lures you intend to use later in the day.

Fly or bait casters are responsible for many hook accidents to their fellow fishermen. Look before each cast to make certain no one is in the way. This will also save lures from snagging on trees and bushes as you cast.

To remove the hook from a fish, hold the fish firmly under the gills, so that its head can't flop or wiggle. Get a firm grip before removing the hook.

If, despite precautions, a hook becomes imbedded in your hand or finger, *don't* try to pull it out. If you have a pair of cutting pliers in your tackle box, cut off the shank and push it through, thus causing less further damage to torn flesh. Hook wounds often lead to infection unless treated properly.

# Delayed Rupture of the Spleen

CLAIBORNE W. FITCHETT, M.D.  
SPYROS PHILIPPAKIS, M.D.  
Norfolk, Virginia

**Rupture of the spleen may not produce symptoms for 48 hours or longer after injury. Abdominal pain is the most reliable symptom as a fall in hematocrit occurs in only half of the cases. Splenectomy should be done as soon as the diagnosis is made.**

ANY INJURY to the spleen may produce a life threatening situation because of the immediate danger of intra-abdominal hemorrhage. Trauma to the spleen may be direct or indirect in nature and may be a definite penetrating injury into the spleen or due to the transmission of forces through the spleen as in blunt trauma. The result of the injury may become apparent at once or it may produce a series of symptoms which cause some delay in the diagnosis. Those cases which do not produce symptoms within the first 48 hours have been called delayed ruptures of the spleen. In rare cases the diagnosis might remain obscure for weeks, months or years and this type of case has been entitled occult rupture of the spleen. A recent analysis<sup>1</sup> of 75 cases of traumatic rupture of the spleen at the Norfolk General Hospital (table 1) resulted in 11 cases falling in the category of delayed rupture of the spleen. This accounts for 14.6 per cent of the entire series. An analysis of these 11 cases is now made in order to shed some light on this phenomenon.

From the Department of Surgery, Norfolk General Hospital.

## Analysis of Cases

The 11 cases of delayed splenic rupture at the Norfolk General Hospital are summarized

TABLE 1  
TRAUMATIC RUPTURE OF SPLEEN  
NORFOLK GENERAL HOSPITAL  
1960-1969

Type of Injury	Number Cases
1. Blunt Trauma.....	44
Immediate Rupture...32	
Delayed Rupture.....11	
2. Penetrating Trauma.....	7
3. Iatrogenic.....	24
Total.....	75

in table 2. Analysis of these cases reveals that five of these occurred in children and six in adults. All of the adults were males and all sustained blunt trauma to the abdomen. In the adults the time interval between injury and diagnosis was as short as four days and as long as 14 months. One-half of the adults were involved in automobile accidents and in three of the adults, there were associated injuries to the rib cage.

Analysis of the injured children revealed that three were girls. All of the children were between six and ten years of age and all sustained blunt injury to the abdomen from a fall. The delay in diagnosis from time of injury in all children was either two or three days. Three of the five children had associated injuries.

All 11 cases underwent splenectomy without operative death. One adult male had a myocardial infarction following surgery but recovered. There were no other significant complications.

In reviewing the symptoms prior to diagnosis all patients complained of abdominal pain. In eight of the 11 cases the abdominal



pain was severe enough that the examiner classified the patient as having an acute surgical abdomen. In two other cases the pain was

anemia, weight loss and x-ray evidence of a mass displacing the stomach anteriorly and toward the midline (fig. 1). This case, at

TABLE 2  
DELAYED RUPTURE OF SPLEEN

Case	Sex	Age	Type Trauma	Time Interval	Type Injury	Acute Abdomen	H & H	Assoc. Injury
1	F	7	Blunt	3 Days	Fall	Yes	Low	—
2	M	7	Blunt	3 Days	Fall	Yes	—	—
3	F	10	Blunt	2 Days	Fall	Yes	—	Fracture Ribs
4	M	8	Blunt	2 Days	Fall	LUQ Only	—	Concussion
5	F	6	Blunt	2 Days	Fall	LUQ Only	Low	Contusion Colon
6	M	34	Blunt	4 Days	Blow	Yes	—	—
7	M	38	Blunt	4 Weeks	Auto	Yes	—	—
8	M	63	Blunt	5 Days	Auto	Yes	—	Fracture Ribs
9	M	56	Blunt	10 Days	Fall	Yes	Low	Fracture Ribs
10	M	63	Blunt	5 Days	Fall	Yes	Low	—
11	M	47	Blunt	14 Mos.	Auto	Mass LUQ	Low	Contusion Chest

SUMMARY

CHILDREN—5 (3 Females)—All from falls  
Adults —6 (All Males)—3 auto accidents  
2 falls  
1 direct blow  
TREATMENT—SPLENECTOMY—11 Cases—No deaths

confined to the left upper quadrant only and in a single case, there was a mass in the left upper quadrant. Five of the 11 cases presented with falling hematocrits and varying degrees of other evidence of blood loss. In no case is there any record of a paracentesis being performed. X-ray examinations are inconclusive for this group of patients.

No case was classified as a delayed rupture of the spleen whose time interval from injury to diagnosis was less than 48 hours. Two cases in this series are unusual in the prolonged interval between injury and diagnosis. Both of these cases occurred in adult males, one being diagnosed four weeks after a minor automobile accident, the other being diagnosed 14 months following an automobile injury. The former of these was explored with a diagnosis of acute appendicitis because of an acute surgical abdomen with a 19,000 white count. The peritoneal cavity contained clotted old blood as well as fresh blood and the spleen showed an old laceration with a partially organized hematoma which had ruptured. The latter case was explored with a diagnosis of pseudocyst of the pancreas because of an abdominal mass,

operation, revealed a huge splenic mass consistent with an old organized hematoma of the

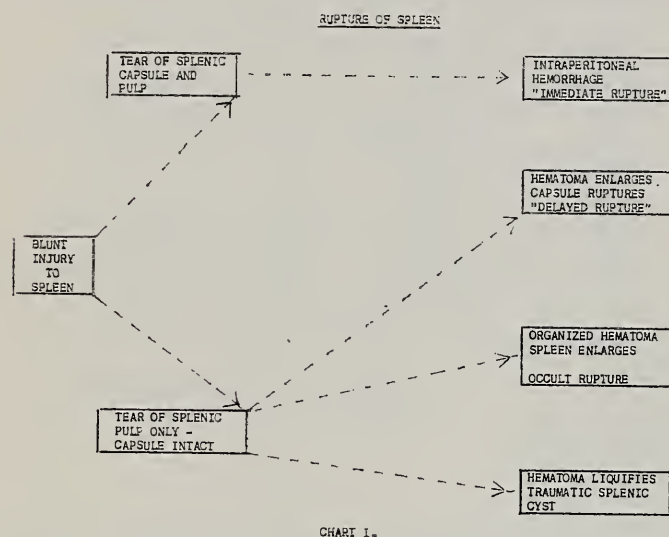


Fig. 1

spleen. This latter case would probably fall in the category of occult rupture of the spleen.

## Discussion

Blunt trauma to the spleen is a frequent cause of splenic rupture.<sup>2,3</sup> The force of the injury is significant enough to cause a major disruption of the splenic pulp with or without a tear of the splenic capsule (chart no. 1). If



both the splenic pulp and the splenic capsule are torn immediate intraperitoneal hemorrhage occurs and, depending upon the degree of hemorrhage, diagnosis is usually made within a number of hours. If the force of injury, however, causes a tear or laceration only of the splenic pulp and leaves the capsule intact a different sequence of pathological changes may occur. Immediately following the injury a hematoma will form in the splenic pulp but will be contained by the intact splenic capsule. With the passage of time the hematoma may enlarge rapidly enough to cause a rupture of the splenic capsule with immediate hemorrhage into the peritoneal cavity. In other cases the hematoma may form more slowly and have the opportunity to organize within the splenic capsule. This process over a period of time may produce an extremely large splenic mass and would account for the cases that have been classified as occult splenic rupture. The hematoma within the splenic capsule may form and later liquefy and would then explain the case of the so-called traumatic splenic cysts.<sup>4</sup> Thus the amount of injury transmitted to the spleen is of paramount importance and the secondary

factor of time is necessary for pathological processes to occur.

It would appear that in many cases the splenic capsule does not rupture or tear at the time of injury.<sup>5</sup> A number of these will not tear for a couple of days but the presence of the hematoma within the spleen begins to weaken the capsule which eventually ruptures or tears resulting in intraperitoneal hemorrhage. The degree of organization of the hematoma appears to be important as well as the capacity of the splenic capsule to stretch as the hematoma enlarges. The extremely large and bizarre splenic masses have been produced in this manner.

The patient with the organized hematoma of the spleen usually does not present evidence of intraperitoneal bleeding but rather with a tumor mass in the upper abdomen. Lorimer,<sup>6</sup> Foley<sup>7</sup> and Drapanas<sup>8</sup> have all documented the bizarre symptomatology produced by such splenic masses. Occult rupture of the spleen should be considered in the differential diagnosis of any mass in the upper abdomen especially on the left side. Detailed x-ray studies of the upper gastrointestinal tract and perhaps selective angiography may help in making a proper diagnosis prior to surgery.

## Summary

Delayed rupture of the spleen may not manifest any symptoms for several days after injury. It is more apt to occur in children sustaining blunt injury to the abdomen, especially following falls. The most prominent and only reliable symptom appears to be abdominal pain. The fall in the blood count and hematocrit occurs in only half of the cases. Splenectomy is the method of treatment and should be performed as soon as diagnosis can be made.

Occasionally one sees symptoms that were caused by splenic injury weeks or months prior to diagnosis. These cases have been classified as occult ruptures of the spleen and traumatic or false splenic cysts and may present bizarre diagnostic problems.



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## Federal Ruling May Wipe Out Many Long-Used Cough Remedies

Your favorite cough medicine may soon be gone. Physicians may be forced to revert to the practice of bygone years and write their own cough mixture formulation for the local pharmacist to prepare, following orders from the Food and Drug Administration withdrawing from the market dozens of commercially prepared cough medications, an editorial in the April 30th issue of the *Journal of the American Medical Association* declares. The FDA ruling is based on regulations that require proof of effectiveness of all medications through well-controlled clinical trials. Many of the cough medicines, although used safely and effectively for many years, do not have this clinical proof, and may be withdrawn from the market.

"Unfortunately, neither practicing physicians nor the pharmaceutical industry can produce the objective evidence required under the law on behalf of most cough mixtures." Author is William R. Barclay, M.D., the AMA's

assistant executive vice president for scientific affairs.

"Cough mixtures are effective," says Dr. Barclay, "But, in addition to the one or two principal ingredients that make them effective, they contain a number of minor ingredients that cannot be shown to contribute to the overall effectiveness of the mixture."

Several years ago the AMA pointed out in its drug manual, AMA Drug Evaluations, that trying to evaluate cough medicines is at best confusing, and suggested to physicians that they become familiar with a few preparations that they know from experience are useful, and stick to these few.

"The FDA, the medical profession, pharmaceutical industry and the public are placed in a difficult situation. . . . Preparations in long and general use, generally harmless, and significantly beneficial as judged by physician and patient experience, must, under act of Congress, be either withdrawn, reformulated or relabeled."

# Hodgkins Sarcoma Involving the Testicle and Adnexa

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**An exceptionally rare case of Hodgkin's sarcoma involving the right testicle and its adnexa simulating an inguinal hernia is described. The tumor mass of the testicle was large and extended through the spermatic cord to the retroperitoneum where it formed a huge tumor mass. The lung, perirenal fat, spleen, jejunum, vertebrae, and lymph nodes were infiltrated by the neoplasm.**

**P** RIMARY TUMORS of the testicle are not uncommon, but metastases to this organ are very rare. Lymphosarcoma, including Hodgkin's Sarcoma, is exceptional since the testicle normally does not contain lymphoid tissue.

## Case Report

A 79-year-old veteran was admitted to the hospital on 4-12-71 for progressively enlarging right inguinal hernia over a period of seven months. This patient felt some discomfort and occasional pain in the right groin and scrotum due to enlarged hernia (10 x 10 cm.). He had complained of generalized weakness. He gave a history of obstructive urinary symptoms, occasional discomfort in the cervical spine, cough with slight expectoration, and shortness of breath on moderate exercise. In the past history he mentioned that he had been smoking 10 cigarettes a day for over 50 years

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and drinking socially. Family history and childhood illnesses were non-contributory. In 1955 he was diagnosed to have osteoarthritis and obstructive emphysema.

*Physical Examination* revealed: T-97, P-88, BP-170/104. He was alert with an average intelligence, but markedly dehydrated and emaciated. He appeared in distress with multiple skin bruises on his forearms. Head, neck, ears, nose, mouth, and throat were unremarkable. Few rhonchi and rales were heard on both lung bases. The heart was not enlarged and no murmurs or thrills were noted. Liver, spleen and kidneys were not palpable. A large mass was noted extending from the right groin to the right scrotum. It was interpreted as an indirect type of inguinal hernia. Right testicle was not palpable, left testicle was normal in size and location. There was a severe degree of phimosis. Rectal examination revealed an enlarged prostate but clinically there was no evidence of malignancy. Neurological examination did not reveal any abnormalities. The vertebral column did not show any abnormality or tenderness.

*Laboratory studies:* On admission, blood count showed 13,400 WBC; 74% neutr.; Hgb.-15.6; Hct.-53; FBS 126 mg%; BUN 21 mg%; Bilirubin 0.5 mg%; Alkaline phosphatase 9.5 BU; SGOT 51; LDH 319. Urine showed pyuria with 4-6 RBC/hpf. Albumin and sugar were negative. CO<sub>2</sub> combining power 32.5; chlorides 99; sodium 145; potassium 4.2 and calcium 7.9 meq/L. Bleeding and coagulation time were normal. Platelet count—425,000. Prothrombin time normal. Liver function studies were within normal limits. E.K.G. normal. Liver scan for possible occult metastases negative.

On the day of admission he was examined by the urologist who found urinary retention



up to the umbilicus. This was drained, and an indwelling Foley catheter was inserted. On April 28th the patient underwent a transurethral resection of the bladder neck, urethral dilatation and circumcision with no complications. The patient complained of constant weakness and was unable to support himself. His condition did not improve. Hgb. dropped to 10.6 gms. without any apparent bleeding. Two weeks following the surgery, the patient lost appetite and was placed on intravenous fluids. On May 19th the patient became febrile, T-101°F with slight confusion and disorientation. Physical examination at that time revealed generalized rales and rhonchi on both lung fields suggesting pneumonia. Antibiotics were added to the I.V. fluids and two days later patient was afebrile, responsive and more alert. However, he required maintenance on continuous I.V. fluids and antibiotics. His general condition and mental state fluctuated and finally he expired on May 29, 1971.

### Autopsy Findings

The pertinent finding on external examination of the body was an elevated mass in the right lower quadrant above the inguinal area measuring 15 cm. in length and 3.5-4 cm. in width. This mass was in continuity with a right scrotal mass which was firm and estimated to be 14 x 14 x 8 cm. in size. The overlying skin was purplish in color and smooth. The left scrotum was unremarkable.

Internal examination revealed a minimal amount of straw color fluid of the peritoneal cavity. In the right lower quadrant an elevated mass was noted which replaced and followed the course of the right spermatic cord extending into the scrotal sac, and was attached to the right testicle which measured 12 x 14 x 8 cm. and weighed 200 gms. (Fig. 1) Both the testicle and the spermatic cord were firm in consistency and gray-white in color. The left testicle was unremarkable, weighing 30 grams. The inguinal mass was also connected to a retroperitoneal mass measuring 20 x 17 x 18 cm. that pushed the duodenum anteriorly and to the left. There was minimal amount of straw

colored fluid in the pericardial and pleural cavities. Cervical and mediastinal lymph nodes were not enlarged but the retroperitoneal, mesenteric, peripancreatic and celiac lymph

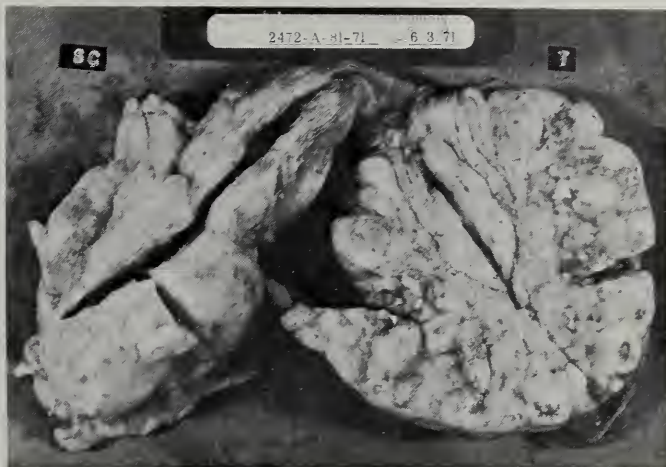


Fig. 1. Gross specimen of the testicle (right) and spermatic cord (left).

nodes were enlarged and formed confluent masses. The lungs showed bilateral bronchopneumonia of the lower lobes with severe edema and congestion. Emphysema of both lungs was marked. There was marked generalized arteriosclerosis with arteriolonephrosclerosis and old scars of the myocardium.

### Microscopic Findings

The microscopic findings showed that the immediate cause of death was a confluent bronchopneumonia. The heart showed old scars in the myocardium with arteriosclerotic changes of the coronary vessels. The liver showed congestion with minimal fatty metamorphosis. The testicle, retroperitoneal mass, spermatic cord and lymph nodes from the different sites were completely replaced by sheets of neoplastic round cells with numerous giant cells. These giant cells were either multinucleated or binucleated with prominent acidophilic nucleoli consistent with Reed-Sternberg cells. (Fig. 2) The cytoplasm was scanty. Mitotic figures were conspicuous in number. Areas of necrosis were prominent. Gomori's reticulum stain appeared positive for reticulin. Lymphocytes were essentially absent. The spleen was markedly congested with some neoplastic cell infiltration. Pancreas showed no



remarkable changes, but the peripancreatic lymph nodes revealed loss of architecture with complete replacement by neoplastic reticulum cells with multinucleated giant cells and bilobular nuclei with prominent nucleoli.

from node to node in the direction of the lymph stream but it is by no means unusual for it to progress against this current. The lymph nodes that receive the drainage from the testicle are located near the aorta. These

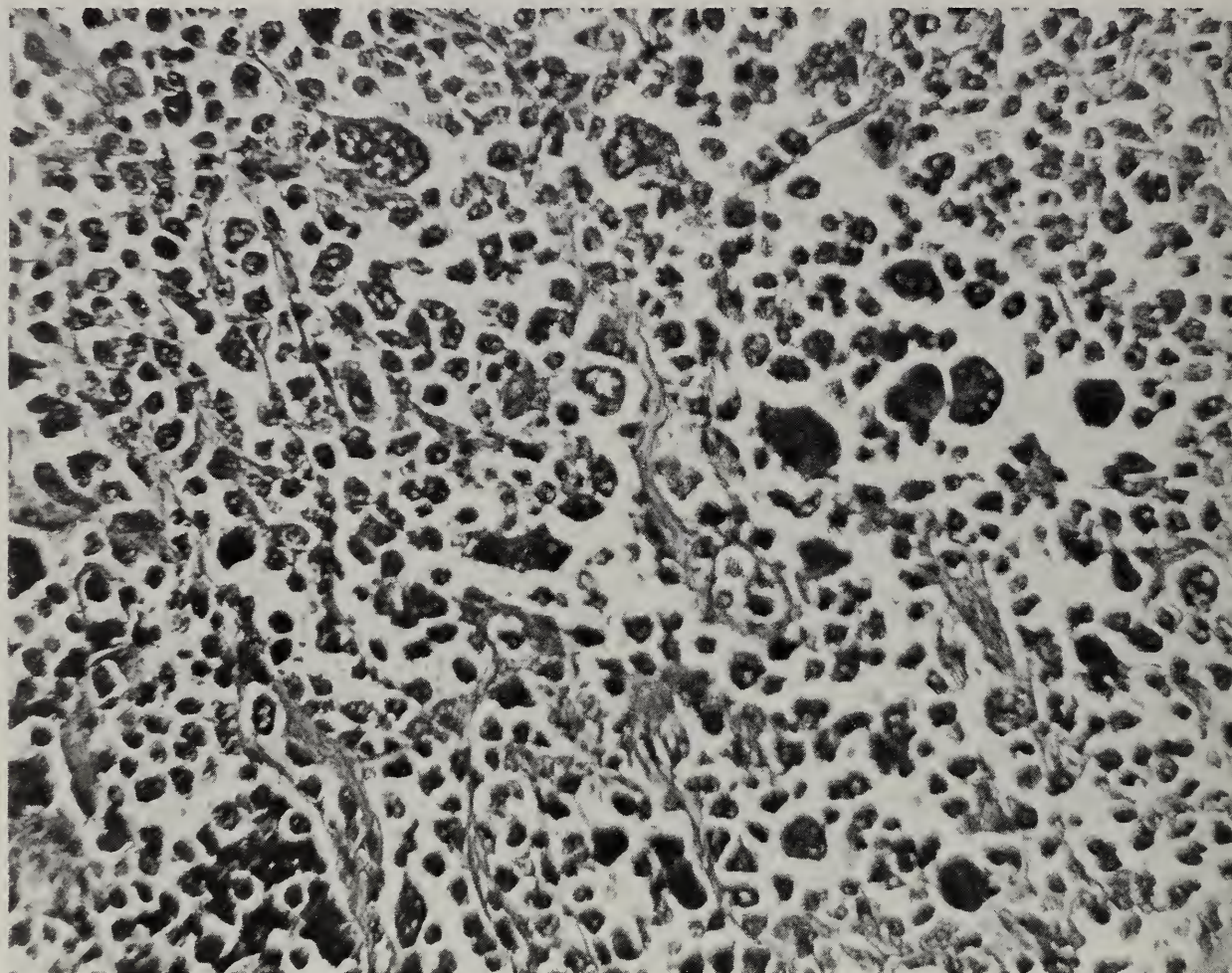


Fig. 2. Photomicrograph of testicle (H&E x 200) showing numerous giant reticulum cells (Reed-Sternberg cells).

The adrenals were moderately fat depleted. In the right periadrenal fat there were scattered neoplastic reticulum cells. The perirenal fat showed an infiltration of neoplastic reticulum cells. In addition, there were arterio and arteriolonephrosclerotic changes. The prostate and urinary bladder were unremarkable. The G. I. tract showed a nodule composed of neoplastic reticulum cell infiltrate.

### Discussion

The testicle is almost immune to metastatic involvement.<sup>5</sup> Ewing suggested that primary lymphosarcoma of the testicle can occur in fetal rest.<sup>2</sup> Lymphosarcoma usually spreads

are the glands that are always affected early when a primary malignant tumor of the testicle spreads. It is very difficult to establish whether the testicular lesion is primary or merely metastatic lymphosarcoma. Lymphosarcoma of the testicle is very rare, occurring only in four instances among 400 malignant diseases of the testes found at the Mayo Clinic.<sup>5,6</sup> Mathe (1946) has reported a case of lymphosarcoma probably primary in the testicle<sup>3</sup> and Dockerty and Priestly (1942) were able to collect only four cases.<sup>5</sup> Most of the authors considered the lymphosarcomatous involvement of the testis to be metastatic. The testis may be the seat of secondary tumors by retrograde venous extension or by an arterial



route.<sup>3</sup> Lymphoid tumors may develop in extranodal sites. Sugarbaker and Crober (1940) found that the primary site was clinically extranodal in 34.5% of 196 cases.<sup>4</sup> The greatest difficulty arises when the primary focus of lymphosarcoma is in an organ histologically unrelated to lymphoid tissue. This occurrence is certainly rare; in the surgical material of the Mayo Clinic from 1920 to 1944 Pearse and McDonald (1947) could find only fifteen cases (breast three, prostate three, testis four, kidney two, bladder one, bone one, and liver one). Extension of lymphosarcoma can be by lymphatics and by blood vessels. There is enough evidence for the metastatic spread by the frequent finding of lymphosarcomatous invasion of veins and lymphatics by frequent colonization in lungs, heart, kidneys, skin or other organs histologically unrelated to the lymphoid tissue.<sup>4</sup> The proposition that a primary focus of lymphosarcoma may sometimes develop in a non-lymphoid organ must be admitted but the interpretation of unusually situated lesions should be made with caution, more often such lesions should be attributed to haemic metastasis.<sup>4</sup> "In tumors derived from the normally migratory cells of the haemopoietic tissues, free cell mobility is commonly present, and this may easily be an important factor in the wide diffusion of the malignant cells in the leukemias and generalized lymphosarcomas". (Willis, 1948, p. 149.<sup>4</sup>)

The haemic route of dissemination of lymphosarcoma even in the early stages of the disease must be considered when the disease appears in unusual sites and especially in non-lymphoid organs.

## Summary

1. A case of Hodgkin's sarcoma involving the testicle and its adnexa is presented.
2. Metastases of malignant tumors to the testicle are rare, and metastases of lymphosarcoma including Hodgkin's variant are exceptional.
3. Whether the primary is in the lymph nodes or testicle could not be determined.
4. Cases of lymphosarcomas of all types originating extranodally, including the testicle, have been reported. It is impossible to ascertain, either clinically or by post mortem examination the primary site of the neoplasm.<sup>1</sup>

## Acknowledgement

I wish to thank the Medical Illustration Department of the VA Center, Hampton, Virginia, for their help and cooperation.

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# Mayan Physician

## Dr. Thomas Gann's Medical Experiences in the Jungles of British Honduras

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**Dr. Thomas Gann's account of his explorations in Central America give an interesting picture of the medical problems of the natives as well as the hazards of exploration during the early part of this century.**

ACCORDING TO FRANCISCO GUERRA,<sup>1</sup> the three great pre-Columbian American civilizations—Maya, Inca, and Aztec—achieved their high degree of development without the use of domesticated animals, a knowledge of the wheel, or the use of the plough or iron implements. Of the three, the Maya are unique because they alone devised an advanced writing system, a highly accurate calendar, and they created the corbelled vault. In addition, the Maya showed a distinct superiority in mathematics and in astronomy, and, above all, produced an architectural style unrivaled in the ancient American world in its artistic appeal.

The first to extensively explore the Mayan ruins in modern times (in the middle of the last century) was John L. Stephens, the American lawyer, and Frederick Catherwood, the English artist. Since that time the mystique of the Maya has intrigued the minds of men interested in lost cultures. Why did such a brilliant civilization thrive for more than a thousand years and decline without apparent

cause? Who will solve the riddle of the abandoned magnificent, pyramided cities of stone buried deep in the jungle forests of Central America?

The remarkable career of Thomas Gann and his achievements as a Mayan explorer are outlined in a previous paper.<sup>2</sup> The purpose of this report is to describe some of Gann's medical experiences as gleaned from his descriptions of his jungle travels. Gann seemed to have an uncanny knack for remembering the details of his many trips through the forests of British Honduras. In the introduction to Gann's book *Discoveries and Adventures in Central America*<sup>3</sup> the eminent archeologist Thomas A. Joyce explained how Gann retained his daily impressions.

Meticulous writing-up of the day's experiences and results, in spite of the fatigue of bush-travel or excavation work, in the unrestful atmosphere of a fly-infested jungle, requires a stern quality of persistence and discipline. This recording not only includes a record of events but also an interpretation and comments based on a careful study of earlier literature. Gann had the ability to record and interpret and to write an entertaining narrative without accentuating the hard work and exhausting labor that went into his experiences. On the contrary he wrote in a humorous and light vein.

Gann's contact with the Maya Indians of British Honduras began soon after his arrival in Belize in 1894 as a district medical officer. By that time the Maya civilization had deteriorated into a primitive, incohesive group of people living in isolated villages deep in the tropical mahogany forests of British Honduras,

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Guatemala, Mexico and Yucatan. The Toltec domination a century before the landing of Cortez initiated the decline of the Maya. The years of Spanish repression completely destroyed the Maya as a unified nation.

In *The History of the Maya*<sup>4</sup> authored by Gann and J. Eric Thompson, Gann devotes only a few paragraphs to the diseases and medicines of the Maya. The medical material was taken from his extensive monograph *The Maya Indians of Yucatan and British Honduras*,<sup>5</sup> published by the Bureau of American Ethnology fifteen years before. This monograph established Gann as a knowledgeable scientist, an archeologist, and a captivating writer. The following excerpts from this monograph are samples of Gann's comments on a Mayan medical problem:

The Indian's hold on life is a loose one, and easily detached. An elderly man without any apparent physical symptoms, except anemia and enlarged spleen, from which all suffer, will suddenly take to his hammock and announce to friends and relatives, "He in cimil, I am going to die," whereupon he wraps himself in a sheet, refuses food and drink, turns his face to the wall, and does die, apparently from sheer disinclination to live.

Malaria, with enlarged spleen, and hookworm are the commonest disease amongst the Indians. For malaria, a sudorific made by boiling the leaves of the sisim tree in water is used, the patient lying wrapped in a blanket, in his hammock, with a fire underneath, to help the action of the drug.

This treatment is successful, but unfortunately the patient, after he begins to sweat, often plunges into cold water, and takes a severe chill, more dangerous than the fever.

Smallpox, when it visits an Indian village, is a terrible scourge, as the native has not acquired the partial immunity of a civilized community. Sometimes the whole population of a village will depart in masse, leaving the dead unburied, and the stricken ly-

ing in their hammocks, with a supply of food and drink beside them, to do the best they can.

Venereal diseases are rare amongst the Maya, and syphilis is practically unknown; indeed, they seem to be immune to the attacks of this disease. It has been suggested that this partial immunity was acquired owing to the fact that the disease had been prevalent in the New World long before the Conquest, and that it was originally brought from the New World to the Old, and not vice versa.

Simple fractures are set very successfully by getting the fractured ends in apposition by extension, surrounding the seat of fracture with a layer of cotton wool, and applying over this, round the whole limb, a series of small splints, over which a henequen cord is wound to keep the whole in apposition. Excellent results are obtained in this way.

Eye troubles are treated by placing a small seed, for twenty-four hours, beneath the lower lid. On withdrawing the seed, it is naturally covered with a layer of mucus, to which the doctor points as the injurious matter, the cause of the trouble, which he has successfully removed.

In parturition, the dorsal position, upon the floor, is usual. Vigorous massage is carried out by the midwife, especially over the uterus. If this fails, the patient is made to vomit, by pushing a coil of her own hair down her throat, and failing this, a woman of exceptional lung power blows into her open mouth; all obviously methods of applying the "vis a tergo", where "vis a fronte" is not applicable.

The existence of the modern Mayan Indian observed by Gann was a hard one. Death was sometimes a welcome relief. As Gann said, "Existence from the cradle to the grave is one long struggle with a far from bountiful nature, in order to keep soul and body together. Poor and insufficient food, without change or variety to eat, inadequate clothes

to meet the damp cold or winter night, a clay-floored hut to live in—an almost constant state of physical discomfort from rheumatism, due to exposure without proper clothes in all weathers, hookworm, anemia, enlarged spleen and malaria—the game is hardly worth the candle—is it any wonder that death, when it comes, is looked upon by them without terror and without regret.”

The most common diseases of the Indians were hookworm, leg ulcers, and enlarged spleens. Gann said, “The first I was able to attack successfully, the second with a moderate amount of success when the patient would obey orders as to complete rest, which as a rule he couldn’t, but the last I could do very little indeed. I’m sure that the Indians own remedy of drops of the latex of the poison-wood tree sprinkled over the spleen is not as efficacious as any more orthodox treatment.” Gann also wrote, “One reads of the spectacular cures effected among native tribes by travelers equipped with a small medicine chest and a complete ignorance of therapeutics which raises them at once to the status of minor deities, but I must say that in twenty-odd years of experience among the Central American Indians, I’ve never found the medicine chest route to their confidence and trust an easy one. They will accept capsules, tablets or pills, it is true, on the principal, I imagine, that any deal in which something is acquired for nothing is a desirable one, but they rarely take them and when they do, unless a cure is affected after the first doses, they are rejected as ineffectual and the good old conservative remedies of their ancestors as scorched rat for whooping cough and ice cold plunge for pneumonia, which have already killed thousands, are again resorted to. A little spectacular work can sometimes, if occasion offers, be got in with a minor surgical instrument case, especially if supplemented by a few tooth extraction forceps, but these are two edged weapons for the amateur, completely ignorant of surgical or dental technique, and may end in disaster for the patient and for the operator.” In fact, Gann later said that unless you can

cut it off, as an amputation, or take it out, as a tooth, the native has a low opinion of the methodology of modern medicine.

Gann told of one tragic case in which a Spanish Negro of magnificent physique had been feeding pieces of sugar cane into a rude pressing machine operated by bullocks. In a careless moment he rested his hands on the roller and his fingers were caught between the revolving cylinders. Before they stopped the bullocks, his arms to the shoulder-joints were crushed. When Gann arrived, the man was quite conscious; but he had made up his mind to die, for as he said, without his arms, he had no particular use for life. Fortunately the shock was so severe that he was not in very much pain. Without proper instruments Gann “procured a hunting knife with a blade about ten inches long, which I ground till it was razor-edged, and afterwards sterilized by boiling, and with this instrument I removed both his arms.” The anesthetic was a large shot of rum. The patient died later from the shock of his injuries.

Gann complained of the difficulty in employing workers to help transform the vast buried ruins into some semblance of recognition. He indicated, “between the large spleens and malaria, from which nearly all the men suffer, one can never expect an entire gang to report to work on any particular day.”

Gann’s interest in the native methods of treating illness started early in his travels. He told the story of sending a Mayan Indian into the bush to collect botanical specimens. When the Indian returned later in the day, he brought more than twenty samples of bark, leaves, fruit, nuts, roots, and latex—all of which, he assured Gann, were to have the most valuable medicinal qualities. Gann said, “I wrote down their native names and uses in a notebook though I accepted the information with reserve, for during his absence, I had made a haphazard collection of various botanical specimens from the immediate neighborhood of the ruins which I showed him and to each he had no hesitation in fitting an unpronounceable Mayan name and a string of useful medi-



cinal qualities. Some of the bush remedies are really useful as fever grass which is a powerful diaphoretic and diuretic and is given in malaria with good effect. Also the milky juice of the poisonwood tree which blisters whenever it touches the skin and is used as a local application over enlarged spleens; but many are used quite empirically or because of a fancied resemblance to the diseased organ or to the cause of the disease. The surface root which grows on the mounds and so closely resembles a centipede, that in climbing, I have often started back under the impression that I was about to put my hand on one of these insects when as a matter of fact it was one of the roots is regarded as a sovereign remedy for centipede stings." Gann continued, "The next morning the Indian again started off into the bush returning in the afternoon with thirty more botanical specimens used by the Indians for medicinal purposes. Some of these applied externally in the form of fomentations or poultices, others are taken internally as powders or infusions. Every conceivable disease has its own remedy and many of them two or three, while for such prevalent diseases as fever, boils, ulcers, headache, constipation, and diarrhea, there are at least a dozen remedies which may be given together or one after the other until it is effective or the patient dies. One most excellent—and I can personally vouch—efficacious remedy was tried on myself. While sitting on a log talking to the old man, I was bitten on the arm by an enormous ant, the poison of which is fully as painful as that of a bee. I was always under the impression that this was injected by the insects formidable mandibles but the Indian pointed out that the beast is armed fore and aft, for its tail possesses a long hollow retractable needle through which its poison is injected beneath the skin. The remedy, however, lies in the ant itself for it is eviscerated and the innards applied at once to the sting and the pain disappeared as if by magic nor does the place swell or inflame afterwards as it otherwise would. From the ant's point of view, nature seems to have provided it with but a poor pro-

tective mechanism as the first sting is apt to be its last if the stingee is acquainted with its secret." The same type of treatment was used by the Indians in the case of snake bite.

"Later in the day," Gann wrote, "I witnessed the method of bleeding employed by the Indians: a favorite remedy amongst them for headaches and fevers. The patient sits down and the doctor, standing by his side with a little obsidian knife, opens the temple vein holding the head steady with his left hand while an assistant catches the blood in a small calabash. When the doctor thinks sufficient blood has flowed, he binds on tightly a pad of raw cotton to stop the hemorrhage."

Gann told the following story to pinpoint the ignorance and fatalism of the natives. "On the second day of my stay in a clean little hut occupied only by a young widow, I noticed that she seemed very miserable and her nose and eyes were very red, evidently from crying, so I inquired what was wrong. It appeared that her husband had died of smallpox the day before we arrived and moreover had died on the very bed and covered with the same blankets that I had used. I tried to rub in the criminal carelessness of her conduct in letting me sleep in an infected bed, and under an infected blanket, but she was so thoroughly a fatalist that I had to give it up as hopeless, and after having seen the bed and bedding burnt, we took up our quarters in a little chapel which was really the most comfortable building in the place."

While uncovering the ruins of Lubaantum with Lady Richmond Brown and Mr. Mitchell Hedges, Gann conducted a clinic for the natives and their families in the region. At that time Gann was recovering from an attack of phlebitis and had to be carried in a hammock slung on a long pole. His clinic was patronized by a motley crew of Indians. He described one of the Indians as follows: "He was a miserable, thin, sallow, anemic little runt, suffering from hookworm, chronic anemia, splenic enlargement, and sores all over his legs." He had actually visited the clinic in order to introduce his wife to Dr. Gann;

although properly married by the Padre, their union had been childless. Gann said, "I gave them a heart to heart talk on the folly of raising children when they had not the energy to raise enough chickens, pigs, or corn for themselves but I fear it was wasted." Gann suggested that he take a job of bush cutting at good wages. "The very mention of regular work scared him at once and he departed saying he would think it over and let me know in a week but he knew and I knew that he had not the slightest intention of taking the job." There were so many sick Indians turning up for treatment that Gann had to suspend the free list and treat only his laborers and their families. He hoped this maneuver might act as an inducement in bringing in more workers.

Even to this day the Indian seems to resent any effort to bring him the advantages of scientific advances. Gann wrote, "The Indian hates more than anything else any sort of interference from the outside—medical officer coming around to vaccinate his children; Public Health officials to treat him for hookworm and compel him to build latrines, instead of using the bush as his ancestors have done since time immemorial; malarial experts to make blood test and exhort him to screen his water receptacle against mosquitoes; School Inspectors to worry about the education of his children; . . ."

In his book entitled *Mystery Cities*,<sup>6</sup> published in 1925 there are many references to the personal aspects of his journeys. In one paragraph he described a prevalent discomfort of jungle travel: "One never realizes what a boon a bath is till one has gone without it for a week or two in a tropical climate, and the warm spongeover taken over from a small tin dishpan containing about two quarts of this rock-hard water was one of the greatest luxuries I ever enjoyed. It was preceded by a good rub over with a mixture of kerosene oil and tobacco juice to loosen up the ticks and red bug accumulated during the last few days."

Gann wrote, "Insects are undoubtedly the

main curse of the bush. Ticks of all sorts abound here varying in size from a large split pea to microscopic little chaps into whole nest along the bush trail one is constantly brushing, when a veritable shower of these blood thirsty little beasts is scattered over one's trousers or coat spreading rapidly in all directions, and digging in on the inner side of the thighs, all around the waist and in other spots where the skin is thin and incidentally tender and the anchorage is good. Unless removed with kerosene or tobacco juice, they hang on like grim death and suck blood until they turn into tiny distended bladders. Red bugs are even worse than ticks as they burrow deeper into the skin causing intolerable itching and are much more difficult to get rid of. Mosquitoes of all sorts and sizes abounded but one gets used to them; and her buried in the depths of bush are no microorganisms of malaria, yellow fever, of filariasis for them to carry, so their attack can be borne philosophically. Worse than the mosquito, however, is the batlas fly, a minute peripatetic suction pump whose bite itches intolerably and leaves a little red circle of blood about the size of a small pinhead, which in a day or two turns black and does not wear off for weeks. I've seen a white man's hand turn almost black on the backs after a few weeks residence in the bush where these flies abound."

On another occasion Gann said, "While moving some newspapers left on the floor of my house, I was stung on the finger by a scorpion. Fortunately he was only a small one not over an inch long, still the finger swelled to about twice its natural size and was very painful for the rest of the day. I have on several occasions seen people stung by large vigorous scorpions three or four inches long and the results have always been serious. Great pain and swelling around the part stung, dizziness, nausea, vomiting, faintness, and a heaviness of the tongue, all lasting some considerable time. One Indian girl anemic and debilitated as a result of chronic malaria, nearly died from the effects, and was only brought around by a liberal dose of brandy and a hypodermic



of strychnine, and did not fully recover for a week."

It would appear Gann's medical practice among the Maya was limited to the treatment of malaria, leg ulcers, hookworm, enlarged spleen, accidental injuries, carious teeth, dietary problems, insect, scorpion and snake bites, pneumonia, and the ever present intestinal parasites. George Shattuck,<sup>7</sup> who headed the three Carnegie Medical Expeditions into Yucatan in 1929-30-31, has confirmed the fact that these diseases were exactly the ones affecting the Maya. Shattuck's survey found malaria and dysentery to be the outstanding diseases and the causes of death. The conventional disorders found in civilized man were practically absent in the Maya—arthritis, diabetes, cancer and tumors of any kind, heart disease, liver disease, hypertension, leprosy, syphilis, peptic ulcer, arteriosclerosis and nephritis. Dietary deficiencies, amoebiasis, pellagra, scurvy, anemia due to malaria, hookworm in the tribes occupying the rain-forests, chronic leg ulcers, and a follicular conjunctivitis were more commonly seen.

Panepidemics of smallpox, influenza and other virus diseases undoubtedly caused great loss of life. Famines induced by storms, and droughts and plagues of locusts were not infrequent in ancient times, but it is certain that epidemic diseases decimated the Maya in the years after the Conquest.

The presence of yellow fever in Middle America in pre-Columbian times is debatable. At the present time yellow fever is endemic in the spider monkeys in Central America, and cases of human yellow fever are described in ancient manuscripts and in modern literature.

Gann and his companions suffered the hardships of jungle travel without complaint, and apparently contracted little disease or injury. Gann wrote light-heartedly about their occasional accidents or illnesses. He himself spent years in the jungles without permanently affecting his health. A severe attack of malaria while traveling in Yucatan, phlebitis while at Lubaantun, and an infected thumb are men-

tioned in his writings. He recorded the following in his book *Maya Cities*,<sup>8</sup> published in 1927: "Muddy had been suffering from symptoms of dysentery for several days and as the simple remedies at our disposal failed to check it, I thought it best to return to civilization for further treatment, and in this climate dysentery neglected is apt to give rise to very serious consequences. Moreover my thumb split by the accidental discharge of the gun, had become very swollen and painful and began to suppurate . . ."

Gann's attack of malaria occurred in 1927 and is also described in *Maya Cities*,<sup>8</sup> "The first night I arrived at the ruins I had a slight rigor and a temperature of 102°, heralding an attack of malaria; and on going to search for the quinine I found I had been fool enough to leave this absolutely essential drug behind while bringing a regular apothecary's shop of other medicines." After suffering from the fever for several days and getting weaker, with reluctance he finally decided to leave the ruins and return to civilization. This return trip was a nightmare—he suffered from a sequence of chills, aching and fever. He succeeded in obtaining some quinine at the first town, "and loaded myself full of the drug after which I had no return of fever." Gann apparently had a very strong physique—tall, slender and sinewy. According to Joyce he was able to exist on a minimum of food—"A couple of eggs and tea is enough for Gann."

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## Medicine's Next 50 Years

Medicine will be able to turn on your body's immune mechanisms to ward off cancer; or turn them off so a transplanted organ will thrive instead of being rejected. Transplantation of lungs, livers and other organs will be routine. But people won't need heart transplants—if the old "pump" wears out, they will get a new, artificial heart, as they now get pacemakers put in their chests to regulate an erratic heartbeat.—The tragedy of birth defects will be averted by diagnosing genetic disorders in the fetus and correcting them before the baby is born.

These are among the likely medical advances of the next 50 years, a famed surgeon, Dr. Alton Ochsner, New Orleans, writes in the 50th anniversary (April) issue of *Today's Health*, published by the American Medical Association.

"Medicine's recent history of almost unbelievable progress, coupled with the diligence of . . . researchers and the focusing of resources on cancer and heart disease, make me confident there will be many more dramatic developments than I have seen so far in my 52 years as a physician and surgeon." The most important of these developments will come, "perhaps surprisingly soon, in the field of immunology." The body's immune processes help it fight off such foreign invaders as viruses and bacteria, "and the same basic processes also account for the body's antagonism to transplanted organs, as well as to the multiplying cells of invading cancers." The enor-

mously complex immune processes "are yielding so rapidly to investigation that I believe it is only a matter of time, and not much time, before we learn to control them," Dr. Ochsner writes. "When we achieve that, probably through new pharmacological agents that will stimulate specific immune responses to particular threats, then the battle against cancer will be won. "With the same tools we will be able to suppress the body's immunity to foreign tissue, which is what makes it reject transplanted organs."

Even while looking ahead to those advances, Dr. Ochsner cautions that people themselves also can help turn the key to good health, through preventive measures. He sees no cure forthcoming for arteriosclerosis, the blood vessel disease and forerunner of heart attacks and strokes. But prevention is possible, since three of the four leading factors in that disease are relatively easy to correct. They are diet, tobacco and physical inactivity. ("The fourth is heredity, which we can do nothing about.")

Finally, Dr. Ochsner said, there will be changes in the practice of medicine: The old-time family doctor is coming back, better educated than ever and bringing with him the "art" of medicine—the understanding, interest in people and other qualities of the physician that have been overshadowed in recent years by emphasis on the science of medicine. And understanding, compassion and quality of "caring," the surgeon says, make up "the most valuable healing tool that medicine has."



# Cancer Trends . . . .

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## Cancer Prophylaxis by Subcutaneous Mastectomy

### Indications and Recent Trends in Reconstruction

S. DAWSON THEOGARAJ, M.D.

To an average woman, her breasts are a potent external index of her femininity. Conversely, loss of this organ is a crippling physical and psychological blow.

The concept that certain potentially dangerous lesions of the breast would merit removal of the breast has thus met with quiet opposition from women patients. Some surgeons, however, feel that a simple mastectomy with removal of the whole breast including the nipple and areola, is the best approach to cancer prophylaxis, when there are enough indications to warrant such a procedure. For obvious reasons, most women would shy away from such a radical approach and rather chance the later occurrence of carcinoma to losing this secondary sexual characteristic in one full swoop.

Subcutaneous mastectomy through an inframammary route has been known since 1882 (Thomas).<sup>19</sup> Here again, the retention of the nipple-areola complex has not detracted from the defeminizing effects of the operation.

The breakthrough was made in 1961 when Freeman<sup>8</sup> offered a new surgical approach.

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Sponsored by the Professional Education Committee, Virginia Division, American Cancer Society.

The concept of cancer prophylaxis by subcutaneous mastectomy was supported vigorously by him and he followed this with the insertion of prosthetic implants to help restore the feminine contour. Here was the logical solution to a difficult problem. With the advent of better prostheses, the end results have become esthetically very satisfactory and more predictable.

### Indications

The condition for which this procedure is eminently suited for is the patient with extensive "chronic cystic mastitis", otherwise known as severe mammary dysplasia. It has been shown by Frantz<sup>6</sup> that cystic lesions are probably present in 50% of the breasts of all women. The concerning clinical picture is one wherein the patient develops nodules in her breast, which may necessitate repeated biopsies and cause untold mental anguish whilst she awaits the reports. There is a monotonous repetition of the same cycle on this type of patient. A definite relationship may also exist between cystic mastitis and carcinoma. Warren<sup>20</sup> in a study of 1000 patients found that the risk was 4.5 times greater in this group, when compared to the general population. Other authors have found the relationship to be less impressive but there is always a diagnostic concern in this type of patient.

## **Etiology**

It has been postulated that a relative lack of progesterone leads, in certain women, to an excessive estrogenic stimulus of the breasts. Thus there is a proliferation of the epithelium in the ducts, with blockage and dilatation proximal to it. Microscopic features reveal epithelial proliferation, metaplasia, cyst formation and fibrous tissue overgrowth. There may be a microcystic form (adenosis) or a macrocystic form. The lining of the ducts may proliferate focally to produce papillary projections. Increase in the connective tissue may give rise to a picture simulating fibroadenoma.

## **Symptomatology**

In early cases, there may be a localized increase in the density of the breast with associated tenderness. Premenstrual pain in the breasts is a common symptom. This may progress to diffuse nodularity when the microcyst formation and epithelial proliferation become widespread. This is the stage of adenosis. At a later stage, larger cysts may form. Thus Copeland<sup>3</sup> has classified mammary dysplasia into:

1. Mastodynia
2. Microcystic disease (adenosis) and
3. Macrocystic disease.

Out of collected series of over 3000 cases, he found the overall incidence of carcinoma to be three times greater than in the average population. Another significant finding was that in the microcystic form there was a seven times greater incidence of cancer. It is from careful studies such as this that the concept of cancer prophylaxis by subcutaneous mastectomy for selected patients has evolved.

## **Subcutaneous Mastectomy in Fibrocystic Mastopathies**

As has already been touched upon before, a simple mastectomy for extensive benign disease of the breast is unnecessarily mutilating. It leaves in its wake a tender scar on the chest and an even greater scar on the psyche. Since

such a procedure has found few proponents, the usual course in the care of patients with extensive fibrocystic disease has been a series of biopsies which, in the end, lead to numerous painful scars and an equally crippling deformity. Subcutaneous mastectomy with prosthetic implant is a potential solution to this type of problem.

The scope of subcutaneous mastectomy has been extended by Fredricks (1966)<sup>7</sup> and Freeman (1973) to include lobular carcinoma in situ. This viewpoint has been seriously challenged by Simons (1971)<sup>18</sup> and Hutter (1973)<sup>13-15</sup> among others, who have voiced polite dissent. It is well known that in situ lobular carcinoma of the breast has multiple sites of origin in 90% of the cases. Furthermore, some of these lesions may be more invasive in nature than initially suspected and an occasional lymphatic metastasis may be found. At the present state of our knowledge, therefore, I do not believe that a subcutaneous mastectomy ought to be performed for these lesions even though they be regarded as "minimally malignant". The analogy that comes to mind is the condition of the unmarried damsel who was pronounced "just a little bit pregnant" by the wary physician.

To summarize, the indication for subcutaneous mastectomy is severe cystic disease in the premenopausal woman with small breasts who requires multiple biopsies. A strong family history of cancer of the breast and increasing anxiety in the patient with cystic disease are supporting factors. The procedure is probably contraindicated in the woman who is close to menopause and the patient with excessively large breasts (Simons).<sup>18</sup>

## **Surgical Technique**

### *First Stage: Subcutaneous Mastectomy:*

The operation should be performed during the mid-menstrual cycle. The submammary creases are marked preoperatively, with the patient erect.

The patient is prepped and draped with the field extending from clavicle to umbilicus. An incision is made in the inframammary crease



and the dissection is carried down to the pectoral fascia. The dissection, which is both sharp and blunt in stages, separates the breast from the fascia. This is carried up to the infra-clavicular region and extends medially to the midline and laterally to the anterior axillary line. The surgeon returns to the skin incision and elevates the skin flap from the breast capsule. This is performed very carefully by sharp dissection, because it is mandatory that the breast substance be totally removed. The dissection is carried all around the ductal system. The nipple is held up by the assistant and the ducts divided close to it. The undermining of the skin flap is then completed to the extent detailed above. By a pincer movement, the final dissection is made towards the axillary tail of Spence. The breast tissue is thus removed as a "total glandular resection" by this technique. Hemostasis is achieved meticulously, using a combination of fine ties and electrocoagulation. A Fibroptic system for the inspection of the cavity is invaluable during this stage. A large moist pack is placed in the cavity, whilst the other side undergoes a similar procedure. The procedure is bilateral in most patients in whom this procedure is indicated, as they usually have significant bilateral disease. The cavity is later irrigated thoroughly and further hemostasis achieved.

The breast tissue that has been removed is treated to a careful scrutiny by the surgical pathologist, and frozen sections of any suspicious areas are performed. Should there be carcinoma in the specimen, the general surgeon takes over and converts the operation into an appropriate mastectomy for cancer.

After one or both breasts have been removed, there are some (Simons,<sup>18</sup> Freeman<sup>8</sup> and others) who would advocate immediate prosthetic replacement within the cavity. We feel that this is not advisable at the initial operation. We would elect, at this stage, to insert a Silastic® spacer as advocated by Pennisi,<sup>17</sup> and to drain the cavity routinely. The Silastic spacer that is advocated is  $\frac{1}{4}$ " thick, with a base area equal to that of the implant that is to be inserted eventually. Closure is carried

out using catgut sutures in the deeper layers and a subcuticular nylon pull-out suture, for the approximation of the skin. The second stage is usually deferred for two to six months. This is dependant on the shrinkage of skin flaps and the time required for softening of the skin.

### *Second Stage: Insertion of Mammary Prosthesis:*

Many implants for the breast have been tried. From the ox cartilage (Gillies), Derma-fat grafts (Watson), to the alloplastic materials, Polyvinyl alcohol sponge (Ivalon®), Polyurethane sponge (Etheron®), Polyethylene sponge and silicone sponge to name some of the more popular types. All of these gave good initial results but eventually fibrosis set in and, in some, even calcification took place. Thus a "shunken apple" appearance resulted, which was aesthetically and palpably displeasing.

The breakthrough in mammary implants came in 1963, when Cronin and Gerow<sup>4</sup> in collaboration with the Dow Corning Corporation, introduced their new "natural feel" prosthesis. This is a Silastic® (Silicone Polymer) envelope containing Silastic gel with a Dacron backing on the envelope, to allow fibrous tissue fixation of the base. The size most often used for patients following subcutaneous mastectomy is the small, overfill prosthesis. This has the same size of envelope as the small prosthesis, but contains an ounce more of the gel (265 c.c.) (Fig. 1). The overfill design does not readily wrinkle and is ideally suited for patient following subcutaneous mastectomy. Furthermore, the new seamless "tear drop" design of the Cronin prosthesis also gives a more natural contour to the breast in these patients.

During the second stage, the old incision is entered into and the Silastic spacer removed. Without further dissection, the Silastic mammary prosthesis is inserted into this lined cavity. The ease of insertion is facilitated by the prior capsule formation, bleeding is held at a minimum and there is usually no need for

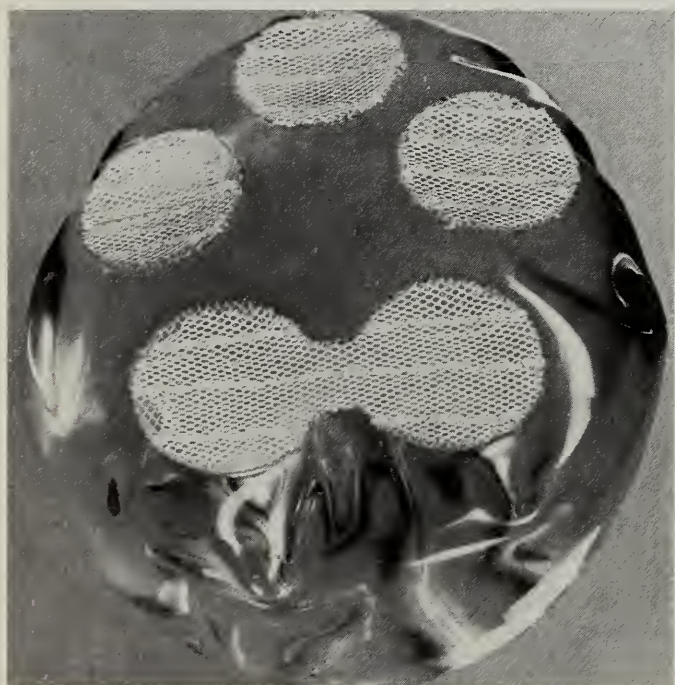


drainage at the completion of this stage. Closure is effected very carefully with chromic catgut in two layers approximating the deeper tissues. A 4/0 nylon pull-out suture in the



Fig. 1: Silastic® (Cronin) mammary prosthesis.

A. Anterior aspect of prosthesis which is a thinwalled silicone envelope, filled with silicone gel.



B. Posterior aspect of prosthesis with Dacron net patches.

intradermal layer serves to draw the skin edges together. A few fine nylon sutures are inserted on the skin to further align the edges and Steristrips are also used. The dressings

after the operation ought to be placed very carefully and we follow the recommendations of Cronin and Gerow<sup>4</sup> in this regard.

The two-staged operation that has been detailed above is fraught with a much lower incidence of failure. The waiting period helps to mature the overlying skin flaps into a more stable cover for the prosthesis.

#### *Follow-up Care:*

Moderate activity is restricted for three weeks and heavy activities of the arms for a further three weeks. The dressings are removed in one week and a specially fitted brassiere is worn for a further three weeks.

Bowers and Radlauer (1969)<sup>2</sup> reported on the rare incidence of breast cancer after subcutaneous mastectomy and mammary implant. This is a very rare occurrence but obviously arose in the infinitesimally small areas of breast tissue left behind by the subcutaneous mastectomy technique. This report certainly points out the need for careful follow-up in patients who have undergone this type of surgery. Palpation of the skin over the prosthesis is not particularly difficult and any suspicious area can be readily felt by the discerning hand and adequately dealt with.

Do breast implants cause breast cancer?

I quote Hoopes and Edgerton<sup>12</sup> in toto: "After 15 years of clinical trial, there exists no current evidence to suggest that mammary prosthetic material increases the incidence of human breast cancer."

#### **Summary**

In women during the peak cancer age, 30-45 years, presenting with severe fibrocystic mastopathy, subcutaneous mastectomy is a logical approach towards cancer prophylaxis. A two-staged procedure is to be recommended for most cases. During the first stage, glandular resection is monitored by a careful pathological evaluation. A Silastic spacer is inserted to create a potential space. At the second stage, after the flaps have shrunk and become softer, the small, Cronin (overfill) prosthesis is advocated for insertion on each side.



By following this plan of treatment in a carefully selected group of patients, cancer prophylaxis is wedded to esthetic restoration of the female form. Such an approach manifests a suitable blending of the science of surgery to the art.

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#### COMMENT

Most patients with chronic cystic mastitis can be managed, diagnostically, by relatively simple biopsy procedures, and we believe the subcutaneous mastectomy with prosthetic insert is indicated for only a small proportion of patients with benign breast disease. There are patients, however, who have multiple cystic lesions leading to a need for a number of repeat

performances of surgical biopsy to rule out the presence of carcinoma. Although this is a select group of patients, it is a particularly disturbing group to both surgeons and the patients themselves. Another type of patient for whom this approach is useful is the young patient with extensive fibroadenomatosis of the breast. Occasionally the breast is virtually replaced by these multiple lesions and they may produce a cosmetic deformity as well as a diagnostic dilemma.

The approach outlined by Dr. Theogaraj for these types of patients appears to have merit, particularly now that acceptable implantable prostheses are available. As he points out, the treatment plan has both patient acceptability and safety if patient selection is carefully performed. General surgeons have had a negative attitude toward this approach in the past, but it certainly deserves a place in our armamentarium.

THE EDITORS

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### Poison Ivy

Poison ivy season is here again. You may have handled poison ivy last year and escaped without an itch, but don't push your luck. No one is permanently immune to poison ivy, or oak, or sumac.

The American Medical Association reminds you that your next meeting with this pesky plant could take place in your own yard, as well as in the woods and fields. Poison ivy, oak and sumac have appeared in city gardens; and poison ivy has been known to form a beautiful growth up the side of a house. Poisonous oils from these plants can come your way in the smoke from a neighbor's burning trash, or on your dog's coat.

If you can detect poison plants, you can often avoid them. Poison ivy and its close kin,

poison oak, are three-leaved plants which may grow as low bushes or climbing vines. They may be mixed with honeysuckle and other climbers. Poison sumac, an eastern swamp plant with seven to thirteen leaflets and small white berries, usually grows as a shrub.

If you have been exposed, wash thoroughly all affected areas with warm water and soap; then sponge with a strong alcohol solution. Using rubber gloves, clean your clothes in an oil solvent and soapy water.

If you know that you will be near poison plants or working with them, have your druggist make a 10 percent cent sodium perborate ointment and apply on exposed skin. After contact with the plant, wash off ointment and scrub all clothing—even shoelaces.



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*State Health Commissioner of Virginia*

## Technical Problems with FTA-ABS Test for Syphilis

In the past two years, the number of fluorescent treponemal antibody (FTA-ABS) tests ordered in conjunction with the VDRL reagin test by Virginia physicians has risen sharply. Recently, the Division of Consolidated Laboratories identified several hundred patients with negative or weakly reactive VDRL tests and borderline or positive FTA-ABS reactions. The Bureau of Preventive Medical Services reviewed the epidemiologic history with many of these individuals, and the majority had no knowledge of previously treated syphilis, clinical signs of active syphilis, or sexual exposure to a proven case of syphilis. Also, there was no consistent pattern of an altered immunologic state, intercurrent infection such as influenza, antibiotic therapy, or drug abuse. The patients investigated lived in scattered areas of the state and showed no unusual characteristics of age, sex, or economic status.

A survey of three of the seven other laboratories licensed by the Virginia State Department of Health to perform the FTA-ABS test revealed similar problems; all licensed laboratories and health officers in Virginia were notified of the situation by the Division of Consolidated Laboratories.

Until further notice, the Division of Consolidated Laboratories will not report FTA-ABS results on patients with a negative or weakly reactive VDRL unless the physician provides a clinical history.

The State Health Department's Morbidity and Mortality Report for the week ending March 24, 1973, contained a report on this technical problem.

This report was sent to the Center for Disease Control in Atlanta and their observations

and reactions are submitted for your information:

"This report from Virginia adds to the number of accounts of positive FTA-ABS tests in patients in whom none of the factors thought to be associated with 'false positive' FTA-ABS reactions (systemic lupus erythematosus, leprosy, any condition resulting in alterations in the globulin system, and possibly drug abuse) can be documented. The Venereal Disease Branch, CDC, has begun work with Virginia and other selected areas to define and quantitate this phenomenon further. Pending the results of this work, the following points are noteworthy:

"1. The FTA-ABS test should be done only in those laboratories whose proficiency is checked periodically by the State Health Department Laboratory. (Such a proficiency testing program does exist in Virginia.)

"2. The FTA-ABS test has never been and is not now being recommended by CDC as a *routine screening* test for syphilis. Its recommended use is to confirm the reactive results of a sensitive but less specific screening test, such as the VDRL, or as a specific diagnostic test in patients with signs or symptoms suggestive of late syphilis. Its increasing use as a screening test apparently stems from a desire to apply the most sensitive and specific test available. Paradoxically, however, such use robs the test of much of its special value in the diagnosis of syphilis. When applied broadly to a population with low risk of having syphilis,

even a test with a low rate of false positive reactions such as the FTA-ABS will tend to have a high ratio of false positive reactions. (In the extreme case, in a population where no syphilis existed, *every* positive would be a false positive.) The prior use of a screening test such as the VDRL has the effect of converting the population to which the FTA-ABS test is to be applied from one of low risk, and in this situation, the ratio of false positive to true positive FTA-ABS tests will be very low.

"3. Laboratories experiencing unexpectedly high numbers of FTA-ABS reactions should rigorously review their techniques. A question is now being raised about the proper use of sorbent; although

the commercial product is intended for use on successive days, laboratories using freshly reconstituted sorbent at the beginning of each work day suspect they are finding fewer presumptively false positive reactions than when the sorbent was being used over long periods. This factor is still being evaluated.

"4. Laboratories using the *automated* FTA-ABS test may be recording unexpectedly large numbers of presumptively false positive reactions for both of the reasons mentioned above: the existence of an automated technique has made the FTA-ABS test more attractive as a screening test, and this technique generally incorporates the use of sorbent over a period of several days."

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### Hyper-immune Hepatitis-B Globulin Studies

Two clinical studies of interest to practicing physicians and paramedical personnel are currently being conducted in the Washington-Virginia area, involving the use of hyper-immune hepatitis-B globulin. The studies have been spurred by the rapid increase in reported cases of serum hepatitis and the recent availability of gamma globulin with a high titer of antibody against the offending agent (Australia Antigen).

The first study involves the administration of hyper-immune hepatitis-B globulin to patients with acute fulminant hepatitis secondary to serum hepatitis. Recent reports indicate the potential therapeutic usefulness of high-titer globulin in this clinical situation and the study is designed to evaluate its efficacy in a randomized, double-blind trial. Many hospitals in the Washington and Virginia areas have been

notified and the study is open to all physicians with patients with this clinical picture. Further information may be obtained by contacting Dr. Hyman J. Zimmerman or Dr. James Kane, (Area code 202-483-6666 ext. 337), at the Veterans Administration Hospital, Washington, D.C.

The second study is designed to evaluate the efficacy of this high titer globulin in preventing hepatitis resulting from accidental exposure to contaminated blood via needle-stick or ingestion. The study is randomized and double-blind, utilizing either the conventional gamma globulin normally employed or the hyper-immune type and is open to any person who may be exposed. Further information may be obtained by contacting either Dr. Finkelstein (483-6666 ext. 293) or Dr. Seeff (483-6666 ext. 241 or 242), at the Veterans Administration Hospital, Washington, D.C.



# **Medicare—Part B . . . .**

CURTIS J. KELLY, JD

## **Medicare for the Disabled**

The 1972 amendments extended Medicare protection to people who are receiving social security or railroad retirement monthly benefits based on their disability, and who have been entitled to monthly disability benefits for at least 24 consecutive months. The groups of beneficiaries are disabled workers; people 18 and over receiving benefits based on a disability that began before age 22; disabled widows and disabled dependent widowers age 50-64 (widows and widowers will be able to retain their Medicare protection until age 65 even though they later may become entitled to reduced retirement insurance benefits); disabled qualified railroad retirement annuitants; and women age 50 or older entitled to mother's benefits who, for 24 months prior to the first month they would have been entitled to Medicare, met all the requirements for disability benefits except for filing a claim for such benefits.

Under this provision, such beneficiaries are eligible for both hospital insurance (Part A) and supplementary medical insurance (Part B). The Medicare benefits provided disabled beneficiaries—the days of inpatient care, physicians' services, and the like—are identical to those provided the aged.

Part A and Part B protection begins with the later of (a) July 1973 or (b) the 25th consecutive month of an individual's entitlement to monthly social security disability benefits.

### **Medicare for Persons with Chronic Kidney Disease**

The amendments extend Medicare coverage to individuals under age 65 who require hemodialysis or renal transplantation for chronic

renal disease and who are currently or fully insured, or entitled to monthly social security benefits, or are the spouses or dependent children of such insured or entitled individuals.

Eligibility for Medicare coverage will begin with the 3rd month after the month in which a course or renal hemodialysis begins, but only with respect to services provided on or after July 1, 1973. Medicare coverage under this provision *ends* with the 12th month after the month in which the individual has a kidney transplant or dialysis terminates.

The Medicare coverage extended to individuals under this provision is identical to the coverage of other entitled people. The Secretary of Health, Education, and Welfare is authorized, however, to limit reimbursement for hemodialysis and renal transplantation to those kidney disease treatment centers which meet regulatory requirements, provided those requirements include a minimal utilization rate for covered procedures and a medical review board to screen patients for the appropriateness of the proposed treatment procedures. The purpose of the requirements is to assure that Medicare payments are made only for quality, medically necessary care.

### **Physical Therapy Services**

Beginning July 1, 1973, the amendment broadens the coverage under supplementary medical insurance of outpatient physical therapy to include the home and office services of the physical therapist in independent practice. Such physical therapist must meet licensing and other standards prescribed by the Secretary in regulations. In addition, the services would have to be furnished under such conditions relating to health and safety as the Sec-

retary may find necessary. Incurred expenses for these services could not exceed \$100 in a calendar year. Payment for the reasonable charges for the covered services, less coinsurance and any deductible amounts due, would be made either to the beneficiary or, on assignment, directly to the physical therapist.

#### MEDICARE B—WORKSHOPS FOR THE MEDICAL ASSISTANT

7/10/73—1:00 P.M.-4:00 P.M.

R. J. Reynolds-Patrick County Memorial Hospital, Stuart, Virginia

7/11/73—1:00 P.M.-4:00 P.M.

Galax General Hospital, Conference Room, Galax, Virginia

7/24/73—9:00 A.M.-12:00 P.M.

Lee General Hospital, Pennington Gap, Virginia

7/24/73—2:00 P.M.-5:00 P.M.

Norton Community Hospital, Norton, Va.

7/25/73—9:30 A.M.-12:30 P.M.

Lebanon General Hospital, Lebanon, Va.

7/25/73—2:30 P.M.-5:30 P.M.

Johnston Memorial Hospital, Abingdon, Va.

7/26/73—9:00 A.M.-12:00 P.M.

Smyth County Community Hospital, Marion, Virginia

7/26/73—2:00 P.M.-5:00 P.M.

Wytheville Community Hospital, Wytheville, Virginia

8/7/73—9:00 A.M.-12:00 P.M.

First National Exchange Bank, Richlands, Virginia

8/7/73—2:30 P.M.-5:30 P.M.

T. K. McKee Hospital, Saltville, Virginia

8/8/73—9:00 A.M.-12:00 P.M.

Red Carpet Inn, Interstate 81, Exit 31, Pulaski, Virginia

8/8/73—2:30 P.M.-5:30 P.M.

Radford Community Hospital, Radford, Virginia

8/9/73—9:00 A.M.-12:00 P.M.

Montgomery County Community Hospital, Blacksburg, Virginia

8/9/73—2:30 P.M.-5:30 P.M.

Giles Memorial Hospital, Lunch Room, Pearisburg, Virginia

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#### Insecticides

Are the bugs eating up your garden?

Most insects can be knocked out with sprays, powders and other poisons, but the unwary gardener sometimes can suffer from the effects of the bug sprays too.

Some tips on use of insecticides are offered by the American Medical Association.

- \* Read the directions on the container carefully—and follow them. The manufacturer spells out the proper usage and safety precautions.
- \* If the directions call for rubber gloves, protective clothing or goggles, leave this one for the experts and use a less potent poison.
- \* Store the insecticide in its original con-

tainer, with original label, in a safe, locked compartment, away from children and pets.

- \* Destroy empty containers immediately.
- \* Apply downwind, to avoid inhaling sprays and dusts. Stay out of freshly sprayed areas.
- \* Do not smoke while spraying or dusting. Some of the chemicals are flammable.
- \* If chemicals are spilled on the skin, wash immediately and thoroughly.
- \* Cover bird baths, dog dishes and fish pools before spraying. Pour left over spray down a drain or into the soil. Don't leave it around in pans or pails.

In case of accident, follow the directions on the container.



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MRS. REUBEN F. SIMMS  
MRS. JOSEPH M. STRAUGHAN

## Legislation

One enormous result of these strides has been that people feel a stronger commitment to having a stake in affairs of government. They have been directly affected when new local governments develop, new highways are built, and new laws are passed which cover vast areas which directly impinge on their everyday lives. Hence, more people and groups are attempting to influence the actions of government that affect them.

Becoming increasingly more aware of the urgent need to take an active role in legislation, it is disheartening to learn that in the November, 1972, election only 54.5 percent of the potential voters voted and that this was the lowest percentage of voters to turn out in a quarter of a century. Immediate response to

Bills are constantly introduced into Congress that are of interest to medicine. It is hard to believe that in the first week of the 93rd Congress, 2,350 proposals were introduced and 375 of them had a potential impact on medicine.

Being politically active (individually as well as collectively) can pay dividends never before thought possible. Medicine needs friends and you as physicians' wives can help elect these friends in the future.

*must* get out the vote for an election  
*must* let our knowledgeable voices be heard  
*must* take a stand on that which is important to us all  
*must* be willing to work

Let our motto be one of Plato's—"The wise man who does not take part in the affairs of government, must be content to live under the government of unwise men!"

GAIL NEAL  
*Legislative Chairman*

## VaMPAC

Although 1972, an important national election year is over, the work of VaMPAC is *not* over. Now is the time to lay the ground work, coordinate efforts, develop plans, and garner resources for future political action priorities.

Enthusiasm generated at the AMPAC Public Affairs Workshop has provided an impetus for concentrated action, on a continuing basis, to insure a good working organization at next election time. This workshop served as an outstanding means of promoting interest and more importantly, offering information relevant to political action.

To acquaint the members of the medical community who were unable to attend this meeting, this VaMPAC Board Member submits an abbreviated report of the proceedings:

The annual AMPAC Public Affairs Workshop was held in Washington, D. C., March 9 through 11, 1973.

On Saturday morning, ladies present for the workshop were invited to participate at a breakfast meeting, organized by Mrs. John M. Chenault, AMPAC Board Member. There were discussions dealing with the need for more women Pac memberships, strengthening the State Pac organizations through Auxiliary cooperations and the need for a better repore between Auxiliary leaders (especially Legislative Chairmen) and the State Pac Boards. Awards for states with the most women members were announced. They were: 1st, Indiana, 2nd, Kentucky and 3rd Kansas.

At the general session, a panel consisting of a political strategist, Mr. F. Clifton White; a political statistician, Mr. Richard Scammon; and a political author, Mr. Neil Pierce, ana-

lyzed predictions they had made in regards to the 1972 elections. This panel was moderated by Hoyt D. Gardner, M.D., AMPAC Board Member.

On Saturday afternoon, six sessions were offered to workshop participants. At these sessions, we were encouraged to (1) exchange ideas in methods to increase membership, (2) organize candidate support committees, (3) study means of strengthening Pac Boards, (4) refine ways in managing political campaigns, (5) improve communications among State Pacs and AMPAC, and (6) become informed on pending health legislation. These sessions were lively, objective, and provided valuable information on the political climate of the nation. All sessions stressed state Pac membership as the sensible and most effective way to involve the physician and his wife in politics.

The Annual Awards Dinner was held on Saturday evening. FlamPac was the recipient of two first place membership awards.

Goals for the coming year were presented by W. J. Lewis, M.D., Chairman, at the Sunday session. They include: building membership (especially sustaining membership), forming candidate support committees, and encouraging political involvement, looking forward to the 1974-1976 elections.

After the traditional Sunday luncheon, at which the Republican National Party Chairman, N. George Bush, and the Democratic National Party Chairman, Mr. Robert Strauss, spoke, the AMPAC Public Affairs Workshop was adjourned.

MRS. ROBERT D. KEELING  
*Auxiliary Board Member*  
*VaMPAC Board Member*



# **The Medical Society of Virginia . . . .**

## **Minutes of Council**

A meeting of the Council of The Medical Society of Virginia was held at Society headquarters on Sunday, April 8.

*Members Present:* Dr. Carl E. Stark, Dr. John A. Martin, Dr. William S. Hotchkiss, Dr. Mack I. Shanholtz, Dr. William J. Hagood, Jr., Dr. Raymond S. Brown, Dr. Charles E. Davis, Jr., Dr. Percy Wootton (for Dr. Carrington Williams, Jr.), Dr. George J. Carroll, Dr. Baxter H. Byerly, Dr. Walter S. Johnson (for Dr. H. C. Alexander, III), Dr. James C. Respass, Dr. Thomas L. Lucas, Dr. James Hal Smith and Dr. W. Leonard Weyl.

*Others Present:* Dr. Harry G. Hager, Jr., Second Vice-President; Dr. Duncan S. Owen, Jr., Third Vice-President; Dr. William R. Hill and Dr. W. Callier Salley, AMA Delegates; Dr. F. Ashton Carmines and Dr. Michael A. Puzak, AMA Alternate Delegates; Dr. William R. Drucker, Dean, University of Virginia School of Medicine; Dr. Warren H. Pearce, Dean, Medical College of Virginia; Dr. C. Cooper Bell, Jr., Assistant Dean, Eastern Virginia Medical School; Dr. J. B. Funkhouser (for Dr. William S. Allerton), Deputy Commissioner, Department of Mental Hygiene and Hospitals; Dr. James M. Moss, Past-President; Mr. Robert G. Stuart, Executive Secretary, VaMPAC; and Mr. William R. Miller, Attorney.

### **Blue Shield**

The Board of Directors of Blue Shield of Virginia had requested an opportunity to discuss several matters of concern and was represented by Mr. Alden Flory, Mr. Roy Battista and Dr. Levi W. Hulley, Jr. Mr. Flory stated that Blue Shield is extremely interested in peer review and stands ready to cooperate with the Society in its efforts to devise an acceptable PSRO. He went on to say that Blue Shield has acquired a great amount of experience as a result of its participation in CHAMPUS, Medicare and Medicaid. Also, Blue Shield of Virginia currently has available sufficient computer capability for PSRO use should there be interest in its utilization.

Mr. Battista recalled that the House of Delegates had adopted a resolution calling for the Society to cooperate with Blue Shield and presented several thoughts along this line. He suggested that Council might wish to invite a Blue Shield representative to attend its future meetings

—thereby assuring an effective liaison between the two organizations. He also expressed the hope that the Society would encourage its members to participate in Blue Shield and thereby accept usual and customary fees as full payment. It was brought out that Blue Shield has developed a very fair and effective system of reviewing fees and will continue to use The Medical Society of Virginia as the final arbiter when necessary.

Dr. Hulley indicated that acupuncture is beginning to pose something of a claims problem and told of a growing interest on the part of the public. He indicated that an opinion is needed at this time from Council as to whether acupuncture is good medical practice and whether payment should be made for such services under Blue Shield contracts. It was learned that the Attorney General has written an opinion stating that acupuncture does constitute the practice of medicine.

Council was next advised that approximately 80% of all Blue Shield of Virginia contracts are of the UCR variety (usual, customary and reasonable). As a result, the National Blue Shield Office feels that the development of physicians' profiles is now in order. Such profiles are already required under Federally subsidized programs. The thought was expressed that a profile developed from a 90th percentile formula would be much better for the physician than that based on a 75th percentile formula—such as Medicare.

Council then returned to the acupuncture problem and was advised that the Food and Drug Administration is seeking to establish reasonable controls.

*The following resolution was then adopted:*

WHEREAS, the practice of acupuncture is currently being studied by various bodies—including AMA, FDA and NIH—therefore, be it

RESOLVED, that Blue Shield of Virginia, and other carriers, be urged not to pay for such services until such time as the practice of acupuncture has been established as an acceptable mode of medical treatment rather than the experimental procedure it is considered at this time.

Dr. Hotchkiss moved that the Society go on record as considering acupuncture an experimental treatment at this time and recommending that its use be confined to established investigative medical centers where controlled experiments can



be carried out. The statement also points out that acupuncture is subject to abuse and that such abuse apparently exists at the moment. It also points out that in the case of experimental treatment, the physician is obligated to so advise his patient in writing. *Dr. Hotchkiss' motion was seconded and carried.*

Physicians' profiles were then discussed at length and Dr. Weyl moved that the Society, subject to a vote of approval by participating physicians, endorse the development of a U.C.R. Program for participating physicians with the understanding that all final decisions having to do with fees would be made by the appropriate component medical societies. *The motion was seconded and adopted.*

It was agreed that the Society should cooperate with Blue Shield in every possible manner and *a motion requesting the President to direct a letter to the membership urging participation in Blue Shield was seconded and adopted.*

Consideration was then given the suggestion that a Blue Shield representative be invited to attend all Council meetings. *A motion to table the matter was seconded and carried.*

#### **Joint Committee on Medical Fees**

Dr. Moss reported on the activities of his special Joint Committee on Medical Fees. The Committee was formed at the direction of the House of Delegates and was composed of representatives of the Society, Blue Cross-Blue Shield, the Virginia Hospital Association, Virginia Society for Pathology, and Virginia Chapter, American College of Radiology.

Dr. Moss pointed out that the medical profession has been severely criticized because of the high cost of health care. Consequently, it was most important that a study be made of the methods of health care charges and their interrelationship.

Charges made by hospitals and physicians for laboratory and x-ray services have caused some of the biggest problems and the Committee devoted a great deal of its time to this particular area. Dr. Moss indicated that some of the recommendations made by his Committee did not provide an immediate solution because of long-term contracts that exist between hospitals and the specialty groups concerned. However, the recommendations should obtain results as time goes on.

It was then moved by Dr. Hagood that the following Committee recommendations be referred to the House of Delegates and that Dr. Moss's Committee make available prior to the

Annual Meeting any and all material having to do with the question. *The motion was adopted* and the following recommendations will be referred to the House:

- "1. The fee charged for each service should be based upon the full cost of providing that service by the most efficient high-quality method that is available plus a reasonable compensation for the professional skill and time that is required.
- "2. Excessive charges for one service should not be used to compensate for inadequate charges for another service—i.e., no department of a hospital should subsidize another department.
- "3. In applying usual, customary and reasonable guidelines, such factors as providing emergency service at night and on weekends, taking care of indigent patients, and sponsoring educational programs must be considered, but these factors should not be used as an excuse for excessive charges.
- "4. These same principles should be applied to all other diagnostic procedures, such as blood counts, electrocardiograms, electroencephalograms, and x-rays. Physicians should not make a profit from selling another physician's professional opinion, and there should be no collection and handling charge for such things as urine specimens which require no professional skill.
- "5. If these guidelines are to be effective, it will be necessary for third-party payers and patients to refer all questionable charges to a Review Committee of The Medical Society of Virginia for adjudication."

It was then moved by Dr. Hagood that another recommendation of the Committee be adopted. *The motion was carried* and the recommendation reads as follows:

"When physicians draw blood and send it out to a commercial laboratory for testing, they should be paid a reasonable fee to cover the costs of drawing the blood, but they should not be paid or expect a fee for interpreting the results of these tests, as this interpretation has already been paid for when the patient pays for the office visit."

#### **Student AMA**

The Student AMA Chapter of The Medical College of Virginia had requested Society endorsement of a program designed to introduce



the pre-clinical medical student to community medicine (MECO). The program is carried on during summer "vacation" months and utilizes "outlying hospitals in the hope that students might find them attractive. It is the feeling of SAMA that an effort of this kind will help solve the problem of maldistribution.

Mr. Boyd Myers, SAMA President at MCV, indicated that the program has definitely influenced internship and practice locations. He reported that nine hospitals in Virginia have expressed an interest in participating in the program and that financing, from this point on, will be on a local basis. Although there are no set guidelines, it is the hope of MECO that each student will obtain a broad outlook on medical care in the community. For example, it is important for the student to understand how public health integrates with private practice and how the hospital relates to all other segments of community health care.

It was then moved by Dr. Brown that the MECO project be endorsed in principle by The Medical Society of Virginia. *The motion was seconded and carried.*

#### **Liaison Committee**

The Virginia Society of Ophthalmology and Otolaryngology had requested the privilege of discussing with Council its earlier decision to establish a liaison committee to the Virginia Optometric Association. Appearing on behalf of the Virginia Society of Ophthalmology and Otolaryngology were Dr. Charles Young, President, Dr. Harry Taylor, Dr. John Nowell, Dr. Stanley Maoury and Mr. Warren Magee.

*A motion that the matter be discussed in executive session was seconded and adopted.*

Upon emerging from executive session, a motion was made by Dr. Hagood that the Committee be appointed for not longer than one year, that Society representatives be members of the Society of Ophthalmology and Otolaryngology, and that its responsibilities be confined to problems of a nonmedical nature as determined by the physician members. The motion was seconded.

It was then moved by Dr. Weyl that the motion be tabled. *The motion was seconded and adopted.*

It was then moved by Dr. Byerly that Council's previous action calling for establishment of a liaison committee be rescinded. *The motion was seconded and carried.*

A subsequent motion by Dr. Hagood which would establish a liaison committee according to the guidelines previously discussed was defeated.

#### **Howard University and Physician's Assistants**

Dr. Stark had been invited by the Director of the Howard University College of Medicine to serve on the University Physician's Assistant Advisory Board. The Board would be largely concerned with a physician's assistant training program to be carried on under a contract with the National Institutes of Health. Dr. Stark was anxious to obtain the advice of Council.

It was brought out during the discussion that it might be more appropriate if the University would establish liaison with the Medical Council of the Washington Metropolitan Area. The suggestion was also made that contact be made with the Virginia Board of Medical Examiners. It was also brought out that the physician's assistant movement is in its infancy in Virginia and many decisions remain to be made.

*A motion by Dr. Martin that the invitation be regretfully declined was seconded and carried.*

#### **Nurse Practitioner Program**

When Council met on January 7, it was requested by Dr. Leon T. Bloodworth, a Director of the Nurse Practitioner Program at the Medical College of Virginia, to consider endorsement of that program. Council requested additional information and this was provided by Dr. Bloodworth subsequent to the meeting.

*A motion by Dr. Carroll to endorse the program at the Medical College of Virginia was seconded and adopted.*

#### **Continuing Medical Education**

Dr. Carroll reported that a second survey of all Virginia physicians with reference to continuing education activities would be carried out within the next few weeks. The survey, prepared by the Committee on Medical Education, will contain a message from Dr. Stark and will be sent with the cooperation of the State Board of Medical Examiners. Dr. Carroll then presented a report from his Committee and requested approval of the following two statements of policy:

1. Documentation of continuing education should be a requirement for licensed practitioners in the State of Virginia.
2. Continuing education requirements should be similar to those outlined by the AMA Physicians Recognition Award Program.

A motion to approve the above statements of policy for referral to the House of Delegates in October was seconded. There followed a considerable amount of discussion during which it



was learned that a number of component societies have gone on record as being opposed to the compulsory approach to continuing education. There was also some strong opposition to some of the "check off" methods being used over the country and a plea made for more positive and meaningful approaches to the problem. It was brought out that there is a great deal of opposition to relicensure over the State and that Council should take this fact into consideration.

*The motion calling for approval and subsequent referral to the House of Delegates was then adopted and it was requested that the names of those voting in the negative be recorded. They were: Dr. Weyl, Dr. Brown, Dr. Byerly, Dr. Johnson, Dr. Martin and Dr. Hager.*

### **VaMPAC**

Council was advised that the VaMPAC Board of Directors was anxious to fill several vacancies existing on the Board. It was recommended that Dr. Leonard Weyl be named to complete the term of Dr. Joseph Kline from the 10th District, that Dr. Harold Nemuth be elected Member-at-Large from the 3rd District and that Dr. Clarence B. Trower succeed Dr. Harry Taylor as Member-at-Large from the 2nd District.

It was then moved by Dr. Hotchkiss that Dr. Weyl, Dr. Nemuth and Dr. Trower be elected. *The motion was seconded and carried.*

### **School Bus Drivers**

House Bill 1660, recently adopted by the General Assembly, requires the State Department of Education to seek the advice of The Medical Society of Virginia in the preparation of a physician's certificate for drivers of school buses. Dr. Moss stated that the Virginia Diabetes Association is opposed to unreasonable restrictive requirements.

A proposed certificate was studied very carefully and it was generally agreed that that portion which referred to "signs or symptoms" of various diseases and conditions should be eliminated. After further discussion, it was moved by Dr. Hagood that the matter be referred to the Legislative Committee with the request that it consult with the Department of Education in an effort to develop legislation which would be more acceptable to all concerned. *The motion was seconded and adopted.*

### **Computer Codes**

Council was advised that a number of complaints had recently been received concerning the

several computer codes confronting physicians at this time. It was pointed out that Blue Shield uses one code, Medicare another, etc. As a result, Council had been requested to consider the advisability of recommending one particular code and insisting upon its use by all carriers.

The big question was whether an effort should be made at the National, rather than State, level.

It was brought out that the five-digit code devised by AMA had been approved by the Society several years ago and this endorsement should be reaffirmed. *A motion by Dr. Martin to reaffirm the Society's previous action was seconded and carried.*

### **Medical Survey**

The National Children's Rehabilitation Center, Leesburg, had requested Society endorsement of a survey being conducted under the sponsorship of the Governor's Developmental Disabilities Planning and Advisory Council. The survey has to do with epilepsy, mental retardation and cerebral palsy in twenty-two counties and independent cities. Physicians specializing in pediatrics, neurology, psychiatry, orthopaedics and family medicine are being asked to participate.

After learning that the Center is performing a worthwhile and legitimate function, *Council adopted a motion by Dr. Brown endorsing the survey.* A letter of endorsement will be sent to the Center for its use when contacting prospective participants.

### **Threat to Private Practice**

Dr. Pearse pointed out that certain provisions of the recently enacted PL 92-603 could pose a substantial problem to the private practice of medicine. It could conceivably establish two classes of patients—those cared for in teaching hospitals and those in the care of private physicians. Professional fees for patients in teaching hospitals are to be reimbursed on the basis of "cost". Dr. Pearse was afraid that if the Federal Government were permitted to establish a dollars-per-hour professional fee for the care of indigent patients under Medicare and Medicaid, it might very well seek similar reimbursement for physicians in private practice.

It was learned that regulations having to do with this particular matter have not yet been published in the Federal Register. Council expressed the hope that Dr. Pearse would keep it advised of any developments along this line.

Dr. Byerly then offered a resolution which would have the Society express opposition to professional standards review organizations as pro-



vided for in Public Law 92-603. The motion was seconded but lost.

### **MEDIX**

Mr. Osburn reported that the Society has been contacted by the Los Angeles County Medical Society concerning sponsorship of the MEDIX series of television motion pictures. The series was said to be top quality in every way and particularly desirable from the public relations point of view. An effort is being made to obtain sufficient financial backing to permit its national distribution. Foundations contacted to date have indicated that their participation will probably be determined by the amount of support coming from the various state medical societies. Consequently, a pledge of \$1,000.00 was requested.

A motion was then offered by Dr. Weyl which would appropriate the sum of \$1,000.00 in support of the MEDIX series if assurance is received that the films will be televised in Virginia. *The motion was seconded and adopted.*

### **Assigned Community Practice**

Consideration was given a resolution from the Albemarle County Medical Society which recommended that The Medical Society of Virginia and the American Medical Association consider the concept of assigned community practice following internship (alternative to military service) as a means of alleviating the current shortage of primary physicians in the United States.

It was agreed that, while the resolution undoubtedly had much to recommend it, Council was not ready to vote at this particular time. *A motion by Dr. Martin to table was seconded and adopted.*

### **1979 Annual Meeting**

It was recalled that Council, on January 7, had given consideration to three possible locations for the 1979 Annual Meeting—Hotel Roanoke, Arlington's Marriott-Twin Bridges Motor Hotel and The Homestead. There was some question at that time as to whether The Homestead had the facilities required for a meeting of our size and type.

It was reported that The Homestead had been contacted and that adequate facilities are now available. *A motion by Dr. Davis to hold the 1979 Annual Meeting at The Homestead from October 25-28 was seconded and adopted.*

### **Student Representatives**

Dr. Pearse reported that some state medical societies are making it possible for student rep-

resentatives to attend Annual and Clinical Conventions of the AMA. He went on to say that the Medical College of Virginia has been sending student representatives to SAMA Regional and National Meetings and is doing everything possible to further the students' contact with the organized side of medicine. He wondered if The Medical Society of Virginia might be interested in providing similar support where AMA meetings are concerned.

There was some feeling that the students should, by their performance, indicate a sincere interest and purpose in attending the meetings and a motion by Dr. Hagood would have withheld any assistance until such performance could be demonstrated and subsequently evaluated by the House of Delegates. Dr. Weyl called attention to the fact that no student component societies have as yet become active at either medical school and suggested that the motion be modified to postpone any action until such components are a reality. Although the modification was accepted, the motion was withdrawn when it was learned that the request for assistance had originated with the administration rather than the students themselves.

It was then moved by Dr. Hotchkiss that any action be deferred until such time as student component societies are organized. At that time The Medical Society of Virginia would seriously consider providing such aid and assistance to their duly elected representatives. *The motion was seconded and carried.*

### **Special Reference Committee**

Dr. Stark stated that every effort is being made to improve the Society's overall legislative effort and suggested that a special reference committee be provided during the Annual Meeting to consider any legislation pending or carried over from the last General Assembly. It was his hope that such a committee would enable the Society to take a stand on a great many more issues than it has in the past. It was pointed out that 200 Bills of interest to the profession were introduced during the 1972 Session of the General Assembly and 140 during the abbreviated Session in 1973.

Dr. Martin told of his interest in arranging Regional or District meetings with members of the General Assembly and indicated that such a project would undoubtedly require financing by The Medical Society of Virginia.

Dr. Hagood assured Council that every effort would be made to see that all matters pertaining to legislation are handled by one Reference Com-



mittee. He will, as Speaker, have some further thoughts on the matter before the House convenes in October.

### Expert Witness

The Society has encountered considerable difficulty in meeting its obligation to provide expert witnesses in those instances where the Joint Panel for Screening Medical Malpractice Cases has found for the plaintiff. Mr. Moore stated that many methods have been tried—including letters to prospective witnesses from the President and appeals to the medical schools for assistance. While everyone has tried to help, no really successful method has been found thus far. He went on to say that the various specialty groups are now being contacted and requested to compile a list of prospective expert witnesses who might be available during the year. In this manner, those asked to serve would realize that they will be assisting their colleagues in fulfilling an obligation accepted by the Society in the interest of all concerned. One specialty group has already indicated its intention to cooperate and hope was expressed that the remainder will follow its lead.

It was then moved by Dr. Hotchkiss that Dr. Stark also contact the various specialty groups and request their assistance in helping the Society meet its obligation where expert witnesses are concerned. *The motion was seconded and carried.*

### AMA Reception

When Council met on January 7 it authorized a special appropriation of \$1,500.00 to sponsor a hospitality suite for Dr. Palmer during the AMA Annual Meeting in New York. Dr. Palmer will be seeking re-election to the AMA Board of Trustees and all Virginia physicians are proud of his accomplishments and grateful for the untold hours and days he has contributed on behalf of medicine.

Since the hospitality suite would undoubtedly conflict with other similar undertakings, it was suggested that a reception be held on Monday night, June 25, at the Americana from 6:00-7:00 P.M. The guest list would number approximately 450 and the basic cost estimated between \$3,000-\$3,500.

Dr. Lucas reported that the Alexandria Medical Society stands ready to contribute \$500.00 to such an event and hope was expressed that other component societies might wish to do something similar.

*A motion by Dr. Hagood to sponsor the reception and that funds not to exceed \$3,000.00 be*

*appropriated for the purpose was seconded and adopted.*

Dr. Weyl then offered a motion which would have the Society take steps to establish a campaign fund on Dr. Palmer's behalf. *The motion was seconded and carried.*

It was agreed that component societies should be contacted and provided an opportunity to join in this most worthwhile effort.

### Staff Requirements

For many years The Medical Society of Virginia has operated with a minimum staff. It has become apparent, however, that the ever changing scene has brought with it new demands and the staff—as presently constituted—can no longer do its job with the degree of excellence expected. Council was advised that an additional bookkeeper-secretary is needed if the steadily increasing volume of work is to be handled in an acceptable manner. Although any increase in personnel imposes an additional burden on an already overworked budget, such an increase appears more than justified.

*A motion by Dr. Hotchkiss approving the employment of a bookkeeper-secretary was seconded and adopted.*

### Screening Panel

The Joint Medico-Legal Plan for Screening Medical Malpractice Cases has recently been rewritten for the purpose of correcting obvious weaknesses which have appeared over the past two years. A joint meeting of committees representing the Society and State Bar was recently held for the purpose of reviewing the new Plan. Mr. Moore explained the Plan and stated that it must be approved by both organizations before it can become official.

*A motion by Dr. Hotchkiss approving the new Plan was seconded and carried.*

### Legislation

The Medical Society of Virginia carried on the most extensive lobbying program in its history during the 1973 Session of the General Assembly. Both Mr. Miller and Mr. Osburn were registered as lobbyists and did an excellent job in following the 140 Bills of interest and importance to the medical profession. Mr. Osburn stated that Society spokesmen appeared a number of times before committees of the Senate and House—many times on extremely short notice. He then summarized the more important legislation.



## Travel Program—1974

The Society's travel programs continue to be unbelievably well received and thought is already being given to 1974. Three possibilities were reported—a European Tour, a South American Adventure and a second Mediterranean Cruise. It was agreed that it is still a bit early to make definite commitments and that a final decision should not be made before some time in the Fall.

## Organophosphate Insecticides

The United States Environmental Protection Agency has requested endorsement of a letter to be sent all Virginia physicians alerting them to the increased use of organophosphate insecticides. The letter will permit physicians to become more suspicious of possible poisoning in those patients exhibiting increased cholinergic activity.

*A motion by Dr. Carroll to endorse the proposed letter was seconded and adopted.*

## Members' Retirement Plan

For a number of years Dr. William R. Hill, Dr. A. L. Herring, Jr. and Robert I. Howard have served as Trustees of The Medical Society of Virginia Members' Retirement Plans. Over the years the Plans have grown to such size and complexity that the three Trustees believe a Corporate Trustee is in order. Consequently, they have requested that they be relieved of their duties.

With this thought in mind *it was moved and carried that the three Trustees be thanked for their service on behalf of the Society and that the following resolution be adopted:*

"WHEREAS, The Medical Society of Virginia Members' Retirement Plan Trust now sponsors four retirement plans and the Plans have grown in size and complexity, the Trustees desire to be relieved of their responsibilities as Trustees, and

"WHEREAS, it is necessary to amend Plan A in order that it continue to qualify under the Internal Revenue Service Code, be it

"RESOLVED, that

"(1) The Medical Society of Virginia Members' Retirement Plan Trust be amended so as to replace the three individual Trustees with a Corporate Trustee, the United Virginia Bank/First & Citizens National, Alexandria;

"(2) The Medical Society of Virginia Members' Retirement Plan A be amended

to conform to Internal Revenue Ruling 71-461;

"(3) The revised Trust and Plan be submitted to the Internal Revenue Service for approval; and

"(4) A liaison committee be appointed to act as advisors to the Trustee and to the Administrator and to provide periodic reports to the Society regarding The Medical Society of Virginia Members' Retirement Plans."

## Peer Review

Council was advised that the ad hoc Committee on Peer Review was in the process of putting a proposed PSRO plan in its final form. A Constitution and By-Laws is also being written and both documents are expected to be ready for Council at its next meeting.

## Joint Practice Committee

It was recalled that the House of Delegates had deferred action on a proposed Joint Practice Committee until such time as the Governor's Committee on Allied Health Professions had made its report.

Dr. Hager reported that the Society's Committee on Nursing had met with representatives of the nursing profession in Virginia and recommended that a Joint Practice Committee be established. Such a Committee has been recommended by both the American Medical Association and American Nursing Association and would replace the present Committee. The Joint Committee would be composed of eight physicians and eight nurses and would include representatives of both The Medical Society of Virginia and Virginia Nurses' Association.

Although it was the consensus that a Joint Practice Committee should be established, it was agreed that the matter should be referred back to the House of Delegates for a final decision.

*A motion which would recommend to the House of Delegates that a Joint Practice Committee be approved was seconded and adopted.*

## Committee Reports

Dr. Hagood expressed the hope that all Committees would, from this time on, list any recommendations requiring House action at the end of their reports. This would make it much easier for everyone and would serve to spotlight those matters requiring special consideration. It was agreed that this was a most worthwhile suggestion and the Secretary indicated that Committee Chairmen would be contacted in this regard.

Dr. Hagood also expressed the feeling that Reference Committee members should be appointed before the Annual Meeting if at all possible. It was his feeling that these early appointments would enable Committee members to prepare themselves for the business to be transacted. A special effort could be made to place in their hands all material having to do with issues, reports, resolutions, etc.

It was agreed that a meeting some time during the early summer would probably be necessary.

There was some question as to whether it should be before or after the AMA Annual Meeting in New York and Dr. Stark indicated that notices would be sent just as soon as a decision could be made.

There being no further business, the meeting was adjourned.

ROBERT I. HOWARD, *Secretary*

APPROVED:

CARL E. STARK, M.D., *President*

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### Other Races Also Have Sickle Cell Disease

Sickle cell disease, commonly thought to affect only blacks, is also found in other races in Southern Europe, the Middle East and India, says a report in the April 30th issue of the *Journal of the American Medical Association*.

The disease is hereditary, causing in severe cases considerable pain, disability and death. It is transmitted through the parents to their offspring through a defective gene. In the United States it has been found only in blacks.

The greatest concentration of the sickle cell gene occurs among the native populations of equatorial Africa. However, say the researchers, there are scattered groups carrying the sickle cell trait in southern Italy and Sicily, certain areas in northern Greece and in populations of central and southern India. It also has been noted among Yemenite and Iraqi Jews and in southern Turkey, southwestern

Arabia and within the oases of eastern Saudi Arabia.

The authors—Armand P. Gelpi, M.D., and Richard P. Perrine, M.D.—report that the origin of the sickle cell mutation remains unknown, but that it may have appeared first in Central Arabia, spreading west to Africa, north to the Mediterranean, and east to India.

In some of the populations of the Middle East, the disease is often much less severe than in the blacks. A better understanding of the disease might come from more study of the trait in white populations, seeking to determine why it is sometimes milder in these groups.

Dr. Gelpi is with the Palo Alto Medical Research Foundation, Calif., and Dr. Perrine is with the medical department of Arabian American Oil Company, in Saudi Arabia.



## What Price Truth?

**I**T CANNOT BE DENIED that there is much wrong with the distribution of medical care. Doctors know this well, and are doing more about it than social workers, politicians, members of the so-called media, labor unions, and corporation executives.

Motivated by the spirit of Christmas, no doubt, the NBC TV News Special *What Price Health?* which was broadcast on Tuesday, December 19, 1972, and sponsored by The Eaton Corporation, presented an outstanding example of biased, poorly researched (if it was researched at all), incompetent piece of "media journalism".

The tragic, medical horror stories, were removed from context and presented without qualifying explanations. The old weary argument about infant mortality and poor health in the United States was hauled out again, although the actual situation is vastly different and more favorable. The emotional examples of circumstantial, anecdotal, testimonial tragedies were described as though they were the fault of the medical profession, which has a great deal more compassion and understanding for the predicament in which these people find themselves, than its critics.

It has now been revealed that corrective surgery on the pathetic little girl whose congenital heart problem was so exploited by the network, was performed five weeks before the broadcast, and that the delay of several years was necessitated by medical considerations. Moreover, the child was eligible at all times for State aid and assistance under Title V of the Social Security Act.

No mention was made of the failures of government medicine abroad; no mention was made of numerous government agencies and voluntary organizations which are interested in providing care for those who need dramatic types of surgery; and not one word appeared about the contribution the public itself could make to preventive medicine, in the avoidance of death, injury, and hospitalization through a change in attitude on alcohol, automobiles, cigarette smoking, drugs, and quackery.

The malpractice actions in the United States were cited as evidence of poor medical care. Indeed, when one considers the hysteria whipped up by programs of this kind, and the climate in which medicine must be practiced today, there is cause for wonder that we don't have more of them. Needless to say, no mention was made of false malpractice claims.

The AMA and the medical profession were again accused of rationing production of doctors, whereas, in truth, 23 of the 112 U.S. medical schools

were opened in the last six years, and entering students have increased 33% in the last six years. In 17 of the last 18 years, the number of students entering medical schools has increased over the preceding year.

Nowhere in the program was there any mention of the item of personal responsibility in our social and economic system.

A small amount of material inserted in a pallid attempt at window dressing to demonstrate fairness, merely resulted in the portrayal of doctors as evil, money-grubbing monsters, engaged in operating a "cottage industry".

One could go on and on but these are just a few of the items that stood out prominently.

A balanced presentation, even with emphasis on the unfavorable aspects of the problem, would have had at least a modifying influence, and established a reasonably honest perspective. A free society remains free only through individual integrity and responsibility. It is the media who are bringing upon themselves the restrictions and the loss of freedom about which they prate so much.

The Virginia Medical Monthly has waited until now before replying to this depressing piece of business in the belief that the AMA which has demanded equal time on NBC TV, might be heard, or that there might be some explanation forthcoming from NBC in response to a substantial amount of criticism.

It is now quite clear that organized medicine hasn't responded publicly as yet to this gratuitous and insulting attack on our system of medical care, and it is equally plain that NBC doesn't intend to offer equal time to permit a reply to this mischievous program.

We sympathize with the unfortunates whose problems were paraded before the entire nation via the tube. We believe that relief was available and we are perhaps permitted to ask why it wasn't used.

This program was either an exercise in inaccuracy or misrepresentation. In the field of journalism, which is worse?

WILLIAM H. KAUFMAN, M.D.

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*Note:* The American Medical Association has applied for a hearing before the F.C.C. regarding this broadcast.



## Welcome Home Doctor Kushner



OUR NATION'S ONLY MEDICAL PRISONER OF WAR and Virginia's own son since early childhood, Major Floyd H. Kushner, has returned to Danville after more than five years in North Vietnamese prison camps. An excellent and detailed article by Beverly Orndorff in the Sunday, April 15, edition of the *Richmond Times-Dispatch* dealt with the many medical problems with which he had to contend during his long period of imprisonment. Several additional stories about Dr. Kushner, including one in the JAMA will probably appear before this writing is seen in the June issue of the Virginia Medical Monthly, but the journal wishes to fill in a little background about its favorite physician.

Even as an infant, Dr. Kushner appears to have lived dangerously, for at the age of six months he found himself in Honolulu on the morning of December 7, 1941. His father, a dental officer in the Army, was stationed at Hickam Air Force Base adjacent to Pearl Harbor at the time of the bombing. At the end of World War II his parents returned to Danville. Dr. Kushner's undergraduate work and one year of graduate training in chemistry were spent at the University of North Carolina. He then enrolled in the Medical College of Virginia, where he received his medical degree in 1966. He entered the Army and took flight surgery training before going to Vietnam in 1967.

On November 30, of the same year, while flying in bad weather in South Vietnam his helicopter was blown off its anticipated course and crashed into a mountain side. The North Vietnamese claimed later that the copter was brought down by gun-fire but none was heard before the crash. The pilot was killed on impact and the co-pilot died at the site several days later. The crew chief was directed to go down the mountain for aid. His body

was found in a shallow pond where he apparently drowned after being shot. In retrospect, Dr. Kushner doubtless considers himself fortunate, but at the time he was acutely aware that his left wrist was fractured and a blow on his cheek broke two teeth. An x-ray after his return to this country showed an old fracture of the left styloid process. Fate was not through with the doctor though, for the copter caught on fire and an attached machine gun began firing. One bullet passed through his left shoulder.

Three days later, after failure of the crew chief to return, Dr. Kushner left the site of the crash in search of help for the co-pilot. He descended the mountain and thought he was in friendly country. It soon developed the crash was 20 miles within enemy territory. When he went to a native hut he was given milk, but his host also alerted nearby Vietcong and a "motley crew" descended upon him with weapons of various types and degrees of obsolescence.

He was taken to a prison camp in South Vietnam. Here he was not permitted to treat his fellow-prisoners medically. The only drug available was mercurochrome and this was in limited supply. A total lack of protein in the diet, recurring dysentery and intractable malaria were major problems. The doctor lost nearly 65 pounds during the first six months of his captivity. His daily diet consisted of two or three cupfuls of very indifferent rice with helpings of maniok root and occasional rations of some form of evil-tasting fish sauce. Snakes were a sought after delicacy and rats, when available, at least furnished protein.

After more than three years of frustration—a physician surrounded by a world of medical needs but without means to remedy them—he was transferred from Quang Nam Province to Hanoi. This meant a 57 day march up the Ho Chi Minh trail. Here treatment and food were vastly better and the derisive title "Hanoi Hilton" may have been undeserved, in Dr. Kushner's case at least, as compared with his former prison camp. In North Vietnam he actually regained 40 pounds of his lost weight.

So now he is back in Danville with his family and friends. His wife is the former Miss Valerie Moos of Ossining, New York. They have two children. He is planning to take a refresher course at Fort Sam Houston, following which he will specialize in ophthalmology. Just now he is trying to bridge a hiatus of five and a half years during which he did not see another physician or read a single medical article.

Dr. Kushner would like to hear from other physicians, who may have been divorced from medicine for long periods, who might be able to give him helpful suggestions as to how he can best return to the main stream of present-day medicine. If any reader of the journal can be of aid to the good doctor he may be reached at 241 Southland Drive, Danville.

H. J. W.



## **Calendar of Events**

AMERICAN MEDICAL ASSOCIATION—Annual Meeting—New York—June 23-28, 1973.

WALTER L. THOMAS SYMPOSIUM ON GYNECOLOGICAL MALIGNANCY AND SURGERY—  
Duke University Medical Center—Durham, North Carolina—September 21-  
22, 1973.

NATIONAL CONFERENCE ON PHYSICIANS AND SCHOOLS—Sponsored by American Med-  
ical Association—LaSalle Hotel—Chicago—October 4-6, 1973.

ANNUAL CARDIOVASCULAR SYMPOSIUM—Sponsored by Council on Clinical Cardi-  
ology—American Heart Association—Colony Inn—Williamsburg—October 11-  
13, 1973.

THE MEDICAL SOCIETY OF VIRGINIA—Annual Meeting—Holiday Inn/Scope—Nor-  
folk—October 18-21, 1973.

SOUTHERN MEDICAL ASSOCIATION—Annual Meeting—San Antonio, Texas—Novem-  
ber 12-15, 1973.

AMERICAN MEDICAL ASSOCIATION—Clinical Session—Anaheim, California—Decem-  
ber 1-5, 1973.

CONFERENCE ON TEAMWORK FOR THE HANDICAPPED CHILD—Sponsored by the Vir-  
ginia Council on Health and Medical Care—Hilton Inn—Virginia Beach—  
December 9-11, 1973.

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The Medical Society of Virginia maintains a registry of medical meetings and  
programs of interest to Virginia physicians. You can help by keeping us advised  
of any meetings scheduled in your area. This will not only help others avoid  
conflicts but also provide helpful information on opportunities for continuing  
education.

## **New Members.**

The following members were received into  
The Medical Society of Virginia during the  
month of March:

Hilton Robinson Almond, M.D., Richmond  
Robert Frank Berish, M.D., Reston  
Paul Elwood Bowles, M.D., Roanoke  
Lawrence James Bruther, M.D., Springfield

William E. Christian, Jr., M.D., Radford  
I. Kelman Cohen, M.D., Richmond  
Joseph Leo Crosier, M.D., Petersburg  
Robert R. DeMeo, M.D., Reston  
William G. Dunnington, M.D.,  
Charlottesville  
Gilbert Nelson Ferris, M.D., Richmond  
Stephen Joel Goodman, M.D.,  
Tampa, Florida

Stanley Graber, M.D., Virginia Beach  
 James Francis Griswold, M.D.,  
 Virginia Beach  
 Gonzalo F. Guacena, Jr., M.D.,  
 Fredericksburg  
 James Hillman Holmes, M.D., Portsmouth  
 Stewart Edwin Kohler, M.D.,  
 Fredericksburg  
 Edward R. Kolvereid, M.D., Falls Church  
 James Sylvester McGinn, M.D., Quantico  
 Yelameli S. Murthy, M.D., Richlands  
 James Richard Ramser, M.D., Harrisonburg  
 James Banister Stone, III, M.D., Norfolk  
 Mazhar Ali Talibi, M.D., Hampton  
 Alex Ang Tan, M.D., Blacksburg  
 Leonardo G. Tan-Gatue, M.D.,  
 Woodbridge  
 Harold Francis Young, M.D., Richmond

### **Vascular Forum—A New Department.**

Beginning with the July issue of the Monthly, we will have a new department entitled *Vascular Forum*. The material will be edited by Drs. L. G. Halloran and S. A. Levinson and will be selected from cases presented at the Medical College of Virginia's monthly Vascular Surgery Conference.

These Conferences are held on the last Saturday of each month in the fourth floor conference room in MCV's Nelson Clinical Center. The meeting is open to all physicians and their participation is invited and encouraged. There is a reminder mailing list of this meeting and any physician interested should write Dr. S. A. Levinson, Box 231, Medical College of Virginia, Richmond, Virginia 23298.

### **Committee on Arrangements**

The annual meeting of The Medical Society of Virginia is to be held at the Holiday Inn-Scope, Norfolk, October 18-21.

The following have been appointed as the Committee on Arrangements for this meeting:

Chairman—James S. Kitterman, M.D.  
 Golf—John Vann, M.D.  
 Tennis—George A. Harkins, M.D.  
 Scientific Exhibit—Richard E. Easton, M.D.

Meeting Halls and Hotels—Thomas D. Elder, M.D.

Entertainment—Robert B. Gahagan, M.D.

Press and Publicity—Patrick C. Devine, M.D.

Auxiliary—Mrs. Charles Sale

### **Stuart Medical Society.**

Officers for this Society for 1973 are: president, Dr. J. A. Kastretsios; vice-president, Dr. M. E. Tayko; and secretary-treasurer, Dr. E. E. McNamee, Jr.

### **Alleghany-Bath County Medical Society.**

Dr. Charles Ballou is president of this Society for 1973; Dr. Julia Edmunds, president-elect; and Dr. George N. Chucker, secretary-treasurer. All officers are from Clifton Forge.

### **Virginia Society of Plastic and Reconstructive Surgery.**

The annual meeting of this Society was held in Richmond on April 21st. Discussed were problems with Blue Cross-Blue Shield and obtaining coverage for patients who have had mastectomy surgery and now require breast reconstruction; the interest of the Society to have increased participation in The Medical Society of Virginia, the Virginia Academy of Family Practice, and the Virginia Surgical Society; and routine insurance forms.

New officers elected were: Dr. Richard A. Mladick, Norfolk, president, and Dr. Leon Block, Alexandria, secretary-treasurer.

New active members inducted were: Drs. James Morris, Roanoke; Gaylord Williams, Charlottesville; Milton Edgerton, Charlottesville; I. K. Cohen, Richmond; Dawson Theogaraj, Richmond; Norman Wall, Portsmouth; Merrill S. Climo, Falls Church; and Warren Moorman, Roanoke. New candidate members were: Drs. Glenn Shepard, Newport News; Richard Edlich, Charlottesville; Jack Fisher, Charlottesville; James Carraway, Norfolk; Lawrence O. McKnelly, Alexandria; and Houchang Sendi, Alexandria. Dr. Norman Knorr, Charlottesville, was named a new honorary member.



### **Tri-State Medical Association.**

Dr. Louis J. Read, Lynchburg, was elected president of the Tri-State Medical Association at its 74th Annual Meeting in Charleston, South Carolina, March 30-April 1. Dr. Robert P. Singer, Richmond, was re-elected secretary-treasurer.

### **American College of Radiology, Virginia Chapter.**

At the annual meeting of this chapter, held in Williamsburg in March, Dr. George Cooper, Jr., was presented with a plaque in recognition of his distinguished service to State and National Radiology. He is at the University of Virginia and was formerly chairman and professor of radiology at the University of Tennessee.

Dr. George N. Chucker, Clifton Forge, president of the Virginia Chapter, presented gifts to the scientific chairmen: Dr. Theodore Keats, University of Virginia, and Dr. M. Pinson Neal, Medical College of Virginia.

### **The American Psychiatric Association,**

Southeastern Divisional Meeting, is being sponsored by the Neuropsychiatric Society of Virginia in honor of the bicentennial anniversary of Eastern State Hospital. The meeting will be held at the Conference Center, Williamsburg, October 7-10. The format of the meeting, which is to begin with a reception on Sunday afternoon, calls for one morning of historical background and commemorative ceremonies and two of scientific sessions, with afternoons and evenings free. On the evening of the 9th, there will be a banquet featuring the noted columnist and raconteur, Art Buchwald, plus a special appearance by the 5000 Year Old Woman.

The theme of the meeting is "American Psychiatry: Past, Present and Future". Dr. Norman Dain, professor of history at Rutgers University, will speak on American Psychiatry in the 1700's. The keynote address will be delivered by Dr. John Romano, professor of

psychiatry at the University of Rochester. There will be two panels—one on Mainstreams of Therapeutic Modalities and the other on The Role of Psychiatry in Society.

There will be a historical display which includes an assortment of medical and surgical instruments of the era, various restraining devices and other hospital paraphernalia, a collection of authentic apothecary jars and bottles, and the usual array of posters, maps, photographs and papers. Much of the material comes from the excavation of the original hospitals in Williamsburg which was destroyed by fire in 1885.

Further information on this meeting may be obtained from Mrs. Doty Garland, Executive Secretary, Neuropsychiatric Society of Virginia, 1244 Jefferson Park Avenue, Charlottesville, Virginia 22903.

### **Hospital Medical Staffs Merge.**

The medical staffs of Norfolk General Hospital and Leigh Memorial Hospital have unified, creating a single medical staff for Medical Center Hospitals. New officers are: Dr. Howard Kruger, president; Dr. H. Desmond Hayes, vice-president and president-elect; Dr. Claude Smith, secretary; and Dr. Donald Chambers, treasurer.

### **Medical Director.**

Multi-plant textile corporation seeks an industrial physician to direct its progressive corporate-wide medical program involving 12,000 employees. His office and Central Clinic would be located in the Corporate Offices in the fresh-air environment of Eden, North Carolina. The staff includes supervisors and personnel in Nursing Services and Medical Technician Services, all carefully selected and well trained. Lakes, mountains and metropolitan areas near by.

Contact Jack T. Carter, Manager, Management Employment and Development, Fieldcrest Mills, Inc., Eden, North Carolina 27288. Phone (919) 623-2123. (*Adv.*)

## **Obituary . . .**

### **Dr. Samuel Enoch Weymouth,**

Callao, died March 26. He was ninety-six years of age and graduated from the University of Medicine, Richmond, in 1901. Dr. Weymouth was the oldest member of the Henderson United Methodist Church and the oldest member of the Heathsville Lodge No. 109, AF & AM, where he had been a member for sixty-nine years. He had been a member of The Medical Society of Virginia since 1904.

He is survived by a number of nieces and nephews.

### **Dr. Algerd Powell,**

Maspeth, Long Island, New York, died April 10. He was sixty years of age and a graduate of the New York Medical College in 1939. Dr. Powell was a member of The Medical Society of Virginia, having joined in 1941 while located in Roanoke.

His wife survives him.

### **Dr. Henry Boone,**

Norfolk, died January 1, having waged a battle for ten years with Hodgkins Disease. He was fifty-two years of age and received his medical degree from the University of Virginia in 1943. During World War II he served in the Pacific Theatre, attaining the rank of Major in the Medical Corps of the Army. Dr. Boone practiced for some time in the coal fields of West Virginia before locating in Norfolk. He had been a member of The Medical Society of Virginia since 1950.

His wife, two sons and three daughters survive him.

### **Dr. Hiram Wilson Davis,**

Former Commissioner of Mental Hygiene and Hospitals in Virginia, died of a heart attack in Merced, California, on April 28. He had moved to California in 1970 and was in

private practice. Dr. Davis was fifty-eight years of age and graduated from the Medical College of Virginia in 1941. He was formerly an active member of The Medical Society of Virginia.

His parents, Dr. and Mrs. Henry E. Davis, Williamsburg, a son and three daughters survive him.

### **Dr. Ware.**

Dr. Harry Hudnall Ware, Jr., died at his home in Richmond on February 6, 1973, after a long and distinguished career. Dr. Ware was born on May 24, 1898, in Baltimore, Maryland. He graduated from the College of William and Mary in 1920 where he was a Phi Beta Kappa and received his M.D. degree from the Medical College of Virginia in 1924 where he was elected to Alpha Omega Alpha. His postgraduate education in obstetrics and gynecology included an internship at New York Nursery and Childs Hospital 1925-26, and residency training at New York Lying-In Hospital and the Jersey City Hospital from 1926 to 1928.

His academic career began in 1928 when he was appointed as Instructor in obstetrics and gynecology at the Medical College of Virginia. He was appointed as Chairman to that Department in 1942 and remained in that position until his formal retirement in 1967. He was then awarded the distinguished title of Professor Emeritus in obstetrics and gynecology.

Dr. Ware served his institution, his community, and his State with untiring efforts to improve the health care of women. He recognized the great need for family planning early in his career and established a Family Planning Clinic at the Medical College of Virginia in spite of great opposition at that time. He was a founding member of the Virginia League for Planned Parenthood and served as its president. He also served as a member of the V.A.L.C. Committees on Sexual Sterilization and Abortion.

Dr. Ware's wide ranging interests were indicated by his service as Vice President of the American Gynecological Society and the American Association of Obstetricians and Gynecologists, as President of the South Atlantic Association of Obstetricians and Gynecologists, the



American Fertility Society, and the Richmond Academy of Medicine, and a member of the Board of Visitors of the College of William and Mary, among many others.

He was a warm and generous person who was devoted to his family. He married the former Mary Warren Williams in February 1929 and they had four children. Dr. and Mrs. Ware traveled extensively together to his many medical meetings and community activities.

Dr. Ware graduated almost 100 specialists in obstetrics and gynecology during his Chairmanship at the Medical College of Virginia. Their admiration and affection for him was demonstrated on several occasions when they established the H. Hudnall Ware, Jr., Society in 1950, and the H. Hudnall Ware, Jr., Scholarship Fund in 1955, the H. Hudnall Ware, Jr., Visiting Professorship in 1972, and commissioned a portrait of Dr. Ware by the artist, Winslow Williams, in 1962.

He was a man of inexhaustible energy who gave himself unselfishly to his family, his friends, his associates, and his profession. To paraphrase a Roman expression: "Today we see further, because we stand on the shoulders of a giant."

LEO J. DUNN, M.D.

ERIC C. SHELIN, M.D.

WARREN H. PEARSE, M.D.

### **Dr. Boone.**

Henry Boone entered the practice of general medicine in Norfolk in 1950. He died in DePaul Hospital on January 1, 1973, after having waged for ten years an incredibly courageous battle against the ravages of Hodgkins Disease. This dedicated physician, despite this, continued to look after a mammoth practice of devoted patients until shortly before his final period of hospitalization.

Born in North Carolina, the son of a Family Physician, his undergraduate education was received at the University of North Carolina, an institution which he dearly loved. Indeed, literally right up until his demise he followed and glorified in the continued athletic successes of his Alma Mater. His M.D. Degree was received from the University of Virginia, where he subsequently completed his internship and received further training.

During World War II he served in the Pacific Theatre attaining the rank of Major in the Medical Corps of the United States Army. A subsequent tenure as company physician in the coal fields of West Virginia was followed by permanent localization in Norfolk.

His greatest enjoyment was quail hunting on his ancestral farm near Jackson, North Carolina. A superlative handler and trainer of shooting dogs, he was never without at least a brace of the finest animals in Tidewater. Less well known was his success as a rose culturist to which endeavor he brought his usual enthusiastic thoroughness.

A proud and generous father and husband, he is survived by his wife, Mrs. Martha Boone, two sons, and three daughters. Knowing full well his dire prognosis he repeatedly stated to friends his regrets that his family would be left without a father and counselor.

In spite of his wonderful personal attributes, it was as a physician that Henry Boone reached his apogee. His profound professional ability, energy, and dedication were legendary. His honest, frank, courageous, and firm professional approach was greatly appreciated by his numerous patients and by his colleagues.

Henry Boone was an uncomplicated man. Pretense, rancor, and subterfuge were unknown to him. His personal wants were few and his pleasures simple and fundamental. He possessed pride without arrogance.

WHEREAS, in his death this Society has lost a valuable member and friend, and

WHEREAS, this community has suffered the loss of a superb physician,

BE IT RESOLVED therefore, that these Resolutions be spread upon the permanent records of this Society,

AND BE IT FURTHER RESOLVED that a copy of these Resolutions be sent to Mrs. Martha Boone and her children,

AND BE IT FURTHER RESOLVED that these Resolutions be sent to The Medical Society of Virginia for publication in the Virginia Medical Monthly.

WILLIAM TALIAFERRO, M.D.

RICHARD C. REED, M.D.

CHARLES E. DAVIS, JR., M.D.

### **Dr. Smith.**

Dr. Charles Carroll Smith, Jr. died January 27, 1973, in Oklahoma.

Dr. Smith was a lifelong resident of the Tidewater area having been born in Newport News and spent his active professional life in Norfolk until his retirement when he moved to Oklahoma.

Dr. Smith received his medical degree from the Medical College of Virginia in 1912 after which he interned at St. Vincent DePaul Hospital. After World War I he returned to Norfolk to resume practice. Dr. Smith was an interested and progressive physician which led him to pioneer chest

surgery in Norfolk. Acknowledging technology and surgical advances Dr. Smith graciously surrendered chest surgery and concentrated on general surgery as more trained specialists came to Norfolk.

During his career he served as Chief of the Surgical Service at DePaul Hospital and President of the Medical Staff of that Hospital. He is a Past President of the Norfolk County Medical Society, Norfolk Chapter of Infantile Paralysis, and Norfolk Hospital Association.

Dr. Smith was a member of the American Medical Association, The Medical Society of Virginia, Southern Medical Association, Seaboard Medical Society, and American College of Surgeons. He was an active churchman as a member of the First Lutheran Church.

Dr. Smith was a devoted and loving husband and father, a compassionate and dedicated physician, a sincere and loyal friend. Everyone whose life he touched benefited from the experience.

Younger physicians especially felt a gentle presence and appreciated his kindly understanding. He will be missed by all.

Dr. Smith was the husband of the late Mrs. Lila Ide Smith and is survived by a son, Dr. Edwin Ide Smith, two daughters, a brother, and eight grandchildren.

The Norfolk County Medical Society wishes to express its deepest sympathy to the family with the full knowledge that Dr. Smith lived a full and gratifying professional and personal life.

GEORGE H. M. RECTOR, M.D., *Chairman*

CHARLES E. HORTON, M.D.

CHARLES J. DEVINE, JR., M.D.

### **Dr. Turner.**

Dr. Harold T. Turner died on January 20, 1973, in the 55th year of his life. Dr. Turner was born in Norfolk, Virginia, on March 7, 1917. He graduated from Maury High School in 1934,

and from the College of William and Mary with a B.S. Degree in 1938.

He was accepted at the Medical College of Virginia in 1938, but due to financial burdens took a position as salesman for a medical textbooks company. His education again was interrupted, this time by the draft, and he entered the army as a Private in 1940. In 1943 he was commissioned a Lieutenant, serving in the European Theatre of Operation with General George Patton.

Upon separation from the army he entered the Medical College of Virginia and was graduated in 1951. Following an internship at Brooke Army Hospital and a year at Fort Lee Army Hospital, he established practice in Giles County, Virginia. In 1962 he moved to Chesapeake, Virginia, where he practiced until his death.

Dr. Turner was a member of the Norfolk County Medical Society, The Medical Society of Virginia, the American Medical Association, the Seaboard Medical Society, the American Academy of Family Physicians, and at the time of his death, was President-Elect of the Tidewater Academy of Family Physicians. He was a charter Diplomate of the American Board of Family Practice, and was an active member of the Southside Lions Club.

Dr. Turner is survived by his wife, his mother, a brother, two daughters and a son.

WHEREAS, the Norfolk County Medical Society has lost one of its esteemed members, and

WHEREAS, his untimely death was a grievous loss to his family, patients, community and colleagues,

BE IT RESOLVED, that this Society express to the family of Dr. Harold Turner its deepest sympathy in this great loss, and

BE IT FURTHER RESOLVED, that a copy of these resolutions be attached to the minutes of this Society, and be forwarded to The Medical Society of Virginia for publication.



## Guest Editorial . . . .

### **The Doctor as Teacher**

**T**HE WORD DOCTOR comes from the Latin, and originally meant teacher. It should still mean that. The M.D. degree, Doctor of Medicine, refers to the teacher of medicine. There has been a terrific failure of the medical profession, perhaps the most grievous failure among many, when the function of teaching became so generally neglected.

Absorption with diagnosing, curing, or ameliorating disease states has become the medical profession's preoccupation. The function of teaching is seemingly neglected. Great progress has resulted, but only a few disease states are subject to prescribed curative efforts. Many diseases can be prevented, and the body's natural defenses will frequently provide the most effective curative function. But the teaching of disease prevention has been seriously neglected.

Of course, and probably as result of the doctor's attitudes, the public expects and even demands the use of so-called curative efforts. Drug emphasis is the driving concern of both the doctor and his patient. As result most disease states are overtreated, uselessly, or unwisely treated.

Seldom does the doctor evaluate the patient as to habits, diet, nutrition, posture, gait, or other deficiencies or habits, which may be present and can be corrected. These conditions can and do cause disease and are generally preventable or correctable. The patient is unaware of them and expects the advice of the doctor and his guidance. But he does not get it and instead is given a prescription for correction of the immediate complaint. Symptomatic care is the result, and the patient leaves the doctor's office and care with no more knowledge of the prevention of disease or disability than formerly.

The doctor of medicine gives freely of his time to the instruction of medical students, the resident staff, nurses, and practitioners of other ancillary medical professions. He does not take the time or give the effort to the instruction of his patients in health care. That is by far his most important function and is extensively neglected.

Disease may be due to failures in health care, or to emergency situations. I believe that the failures in health care are the most frequent, and the most neglected.

Instruction of this kind is not dramatic like the transplantation of defective organs. No wide publicity will result, and great reputations are unlikely, but the practice of medicine is by definition a service profession, and unless services to patients in need, including education in proper health practices, are given, the doctor is neglecting his major function, and that is all too frequently true.

As doctors of medicine we should treat and instruct our patients. Too often we are only concerned with the rare, the unusual, the bizarre, and spend little or no time with the common and frequently encountered condition. Consequently our time and effort is devoted to a very small percentage of our patients, while the great majority are neglected. Most patients are given placebos and no health advice.

Our traditional function, as teachers of medicine, is neglected.

JOHN T. T. HUNDLEY, M.D.

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# The Other Facet of Patient Care

PHILIP AUSTIN, M.D.  
Alexandria, Virginia

**Am I too altruistic? asks this physician who sees the need to restore the physician-patient relationship to a meaningful reality. He bases his plea upon the premise that deep concern for the patient as a person is an important ingredient of patient care.**

**A** SPATE OF ARTICLES in the medical journals in the past few years has served to focus the physician's attention upon patient care with a clear and sharply defined emphasis. Medical Records Evaluation Committees, hastily organized in many of our hospitals, have enshrined patient care at the center of their activities. Medical schools, the university hospitals and higher institutes of learning are vying with each other to formulate a comprehensive and acceptable definition of the term patient care.

On a more practical level, and having adopted for the moment a working definition which envisions patient care as a tangible commodity which can be evaluated and assessed, the Records Evaluation Committees are beginning to exercise a beneficial influence throughout our hospitals. Medical audits, utilization reviews and tissue sub-committees, as the working arms of the Records Evaluation Committee, are organized and functioning with a view to improving and upgrading the standards of patient care. Serious members of these committees, who understand the objectives to which they are committed, have vowed not to relinquish their efforts until an acceptable level of excellence has been

achieved. This, of course, is all in the best interests of the patient.

Others, too, whether from political, humanistic, social or other motives feel constrained to inject themselves into the act. After all, patient care is their business. Medicare, Medicaid, welfare agencies, third party payers, labor organizations, unions and others are relentlessly insinuating their tentacles into the medical arena with their insistence that health professionals deliver only the very best in patient care.

In all this, the practicing physician is emerging as part of the process. We are caught up in the mechanics of elaborating and delivering an ideal product, designed and tailored to cure an illness by the best possible methods in the shortest time. Our thinking is geared to travel on set scientific lines from which we cannot, or dare not, deviate. The protocol sets the parameters; we work within them. Our sole aim, in our relationship with our patient, is to present him with an all-purpose, sure-fire costly bundle labelled perfect patient care.

As a result of our commitment to the process, we are becoming more and more detached from our patient. We are in danger of regarding him in a cold and dispassionate manner as a curious deformed object, rather than as a person needing our help. As we put increasing emphasis on the method we are losing sight of the man.

Our aim has now become (and we were warned about this in medical school) to eradicate disease from a sick body. Our patient, because of our mental myopia, has become a piece of broken down machinery while we are reduced to the level of super technicians. It is true we use only the finest equipment and our tools are the very best that modern science can produce.

Before the divorce between patient and physician becomes final, it would be well for us to take another look at a forgotten facet of patient care. So far, our third party mentors have neglected to bring this facet to our attention. Their clamor for perfect patient care has obscured their vision too. Receding rapidly into the mists of the not-too-distant past, this other facet demands our immediate attention.

Patient care! Who cares? Let us consider care from the patient's point of view. Does the patient still feel that his physician is caring for him? When he chose us as his physician he placed himself under our care. To care for someone, if it means anything, means we are concerned about him. It means we are vitally interested in his total welfare as a person. To have a scientific interest in a pathological process, be it subsiding or advancing, is neither being interested in a person nor caring for a patient. The person is all important in patient care; the disease is incidental. We care about the patient because of his intrinsic worth as a human being. Deep concern for the person, who has chosen to put his trust in us, and whom we can help by the diligent application of our knowledge, is an important ingredient of patient care.

We are constantly reminded, in this modern age, that the busy physician has less and less time to spend with his patients. The emphasis today is on calculating, streamlined efficiency. The starched white coat has become the symbol of a steel-hearted robot.

The liberated patient, in our culture, is becoming more and more conscious of his rights. He expects hospitals and health professionals to give him only the very best of care. As a consequence, he is becoming more demanding of his physician. We need to keep in mind that he is a sick person, a human being with exaggerated emotional needs and fears, uncertainties, phobias and fantasies. For this patient to know that his physician is personally concerned about him and his problems, his family and his future, can go a long way to alleviate the anxieties which his illness has

thrust upon him. The highlight of his day may be the few minutes when his physician visits and shows a concerned personal interest in his bodily functions and his "feelings".

While we know this visit is actually accomplishing less to cure the patient's disease than the application of the big care package working in the background, we should not underestimate the value of our visit to the patient. Our patient sees the bedside visit as evidence of our personal concern for him. This, in turn, serves to inspire his confidence in us. Many a patient, especially when seriously ill, could care less about the punched cards and the program, the whining wheels and the numbers ejected from the computers on his behalf. The numbers mean as much to him as does the Apgar rating to a new born baby.

Patient care includes personal concern. The concerned physician needs to evaluate his patient's reactions to his illness, his apprehension, his hostilities, his apathy, his frustrations and his deep worries about his family. We can only glean this information by communicating with him on a personal level at his bedside.

There is a real need for us to recapture the close physician-patient relationship in which we approach and accept our patient as another of our kind, a person and an equal. A sincere and genuine relationship of this kind will engender in our patient a confidence that we really care. We are handing him, not only a parcel of care, but a part of ourselves. The knowledge, that we are vitally interested in restoring him to full health and strength because we respect him and care about him, will do much to dispel his anxieties and increase his faith in us.

This is no brief for the pseudo virtues of the affable guy who breezes into the patient's room, and for the next twenty minutes occupies the center of the stage as he shoots the bull over unimportant trivialities. With no real attempt to communicate with his patient or listen to anxious questions or allay his fears or even to lay a finger on the pulse he recedes from the room leaving the patient possibly more frustrated, apprehensive or desperate



than he was before the visit. Furthermore, third party payers and interested government agencies have a right to question the value of this kind of patient care.

Again, no physician should allow himself to become so emotionally involved with a patient that it interferes with his judgment, or takes an unnecessary amount of his time. Physicians have been known to identify so closely with patients that they have developed ulcerative colitis or anginal pains. An excessively close or intimate relationship with a patient may lay the physician open to unjust accusations or set the stage for a law suit. The wise and wary physician will guard against these eventualities.

Our work, as physicians, is more than to hurry into a hospital, scan a few figures referring to blood counts and chemistries, gases and fluids, stool and urine analysis, and from these alone assess the progress our patient is making or how he is feeling. These data, may indeed, indicate that a pathological process is subsiding in a human body. They may inform us that a certain patient, identified by a number on a chart, is returning to a normal state of health. But they have no way of telling us how Mrs. Susie Brown, already thrown off balance by a recent mastectomy and now further insulted by a bilateral oöphorectomy, is really feeling. They cannot tell us the reactions of George Blue to the complaining and cantankerous patient in the adjoining bed, in whose company he is forced to spend twenty-four miserable hours a day. Or are the emotions of our patients not important so long as the Care Package is reacting favorably on their physical body?

There is no substitute for time spent with our patient. The bedside visit, with its golden opportunity for intimate communication with the patient, is still important. There is still much to be said for the old physician-patient relationship, in which the patient recognizes in the physician a concerned all-round healer who has the time, or will make the time, to listen to his problems and show an interest in his fears, his hopes and his aspirations.

The high esteem in which physicians were held in the past is rapidly dwindling as the monolithic structure, of which we have become a part, has destroyed the image of the physician as an understanding compassionate friend. The patient, although still respecting us for our knowledge and skill, is coming to regard us as heartless or indifferent purveyors of a commodity of which he stands in desperate need. Some may despise or hate us, as we appear to stand in a good bargaining position setting our price before we will deliver the package. Others will accuse us of profiteering by their misfortune.

This concept of the physician, and we must examine ourselves to see if we have contributed to this image, has served only to widen the gulf between us and our patients. The gulf can only be bridged and physician and patient brought closer together in mutual understanding when the patient detects that his physician really cares about him as a person. The public image of the physician is forged to a great extent by the attitude we take towards this other facet of patient care. If we really care, we give the very best of our skill and of ourselves.

This is the intangible part of patient care. It is the part which cannot be measured or assessed by a Medical Records Evaluation Committee. It will not be inscribed in our progress notes or recorded in our discharge summary. It may never be exposed to public gaze. It is an invisible bond which links us to our patient. It is an essential component of complete patient care. As men of integrity we owe this to our patient and he has the right to expect it.

A blend of the true scientific approach, in which we use all that modern technology can give us, together with the personal touch of the sympathetic and understanding physician, is the ideal to which we should aspire. Only this can cement the physician-patient relationship into a meaningful reality.

It may be well worth our while to take a prolonged look at this other facet of patient care. No outside agency, pressure or legisla-

tion can impose it upon us. It must arise spontaneously from within our ranks. For our part, we may even derive some unexpected benefit from it. It may do something for us. It can give us a new impetus and engender within us a profound sense of satisfaction and

fulfillment in our work as we realize that we have expended ourselves in a sincere effort to help our fellow man.

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### Society Demands More from Men

Women have a definite advantage over men in re-entering society while coping with mental illness, says a report in the May issue of *Archives of General Psychiatry*, a publication of the American Medical Association.

Society expects men to work at a job outside the home and earn a living, while it demands of women only that they maintain a reasonably good personal appearance and some social contacts, along with doing an acceptable job as housekeeper within the home, the study reports.

The report by a St. Louis team from the University of Missouri School of Medicine and St. Louis State Hospital analyzes the records of 137 patients referred to a psychiatric rehabilitation program conducted in cooperation with rural Missouri towns.

The Missouri program, known as the Foster Community Project, was developed to serve chronic psychiatric patients who do not have the social and vocational skills for supporting themselves in the community and for whom nursing home placement or returning to their own families is inappropriate. The

citizens of two small rural Missouri towns, New Haven and Troy, have been engaged in rehabilitating and placing patients with families or in apartments in their towns.

"Female patients seem to have an advantage in this program. More women than men have been referred, accepted and placed in the communities." Of the patients in the study 53 were men and 84 were women.

Only two female patients placed in the foster communities held regular jobs; the others have either not worked or have done odd jobs such as housecleaning or babysitting. In contrast, only those male patients who could be employed were accepted into the foster communities. If they could not find or hold a job, they weren't wanted.

"Rather than contradicting the arguments presented by the advocates of the women's liberation movement, this evidence supports the need for basing role expectations on individual preferences and abilities rather than sex."

The report is by Ali Keskiner, M.D., Marilyn J. Zalcman, MSW, and Emily H. Ruppert, MSW, all of St. Louis.



# Subclinical Lead Poisoning in a Group of Children

BRIGITTE DE LA BURDÉ, M.D.

WILLIAM E. LAUPUS, M.D.

Richmond, Virginia

**The history of pica (paint and plaster) and the urinary coproporphyrin test were used to screen for lead exposure in a group of "healthy" children from Richmond, Virginia. Pica was reported in 8.8%. Comparison of 207 pica children with 132 children without pica history showed that in pica children the percentage of coproporphyrin positive urines and elevated blood lead levels was relatable to the reported pica habits. In children without pica history, lead exposure was unexpectedly frequent. Symptoms suggesting lead poisoning were reported ten times more often in children with coproporphyrin positive urine.**

**M**ANY INVESTIGATORS have called attention to the association between the ingestion of lead-containing paint flakes and lead poisoning. The highest incidence of pica

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From the Department of Pediatrics, Medical College of Virginia, Health Sciences Division, Virginia Commonwealth University.

This study was supported by Public Health Service Contract No. Ph 43-68-11 from the National Institutes of Health.

is found in economically and emotionally deprived young children who reside in old and deteriorating homes where crumbling plaster and flaking paint are readily available for ingestion. Even though the number of patients with severe lead encephalopathy has decreased during recent years urban hospitals continue to admit youngsters with varying symptoms and signs of lead intoxication.<sup>1,2,3</sup>

The majority of children exposed to excessive amounts of lead appear clinically well or show only vague and non-specific symptoms; these children are potentially in danger of developing lead encephalopathy and/or latent brain damage through continued exposure to lead-containing environmental hazards. Therefore, early recognition and therapy of children with increased lead burden is essential if central nervous system damage is to be prevented.<sup>1,2,3,4,5,6</sup>

This study was undertaken to establish the status of lead exposure in a group of lower class children in Richmond, a middle-sized urban community, utilizing the history of pica and the qualitative coproporphyrin urine test as screening methods for the population at risk.

## Materials and Methods

The research was conducted at the Medical College of Virginia Child Development Study (CDS), a participant in the Collaborative Study on Cerebral Palsy, Mental Retardation, and Other Neurological and Sensory Disorders of Infancy and Childhood, directed by the National Institute of Neurological Diseases and Stroke. The local CDS population consists of 72% non-white and 28% white children. Most reside in the Richmond metropolitan area and were classified in the low socioeconomic group. Mothers were selected at random from the Obstetrical Outpatient Clinic

and their offspring were followed with regular examinations and health histories from birth to seven years of age. All findings were recorded on standardized forms.

This study on pica and lead exposure was conducted within the framework of the CDS. From January, 1964, through December, 1967, trained interviewers carefully questioned mothers of 2,745 children regarding pica, specifying the substance ingested and the frequency and duration of the habit.

All children with a history of plaster or paint ingestion (children with pica) were singled out for further intensive study. A random sample of 132 two-year-old project patients without history of paint or plaster ingestion was chosen as controls.

Fresh urine specimens from 207 children with pica and 132 controls were analyzed for coproporphyrins. The method described by Benson and Chisolm<sup>7</sup> was used. The samples were examined for the presence or absence of coproporphyrins and the results reported as positive or negative.

All patients with coproporphyrin-positive (C-positive) urine tests received a hemoglobin determination, blood smear, sickle cell preparation, x-rays of the abdomen and long bones, and a blood lead level (BLL) done by the USPHS Dithizone procedure. The BLL analyses were performed in the Toxicology Laboratory of the Commonwealth of Virginia's Medical Examiner. Similar studies were performed on ten children with pica but coproporphyrin-negative (C-negative) urine tests. Regular physical examinations were done on all children to identify clinical findings indicative of lead intoxication and to rule out other disorders known to cause increased coproporphyrin excretion in the urine such as rheumatic fever, liver damage, inborn errors of porphyrin metabolism and acute infection.<sup>7,8</sup>

## Results

Without specific questioning for pica during the four years preceding this investigation only three children (0.2%) were reported to eat plaster or paint. Of the 2,745 patients seen

during the study period, 241 children (8.8%) had a history of paint or plaster ingestion. Of these, 81.3% were non-white and 18.7% white. There was no appreciable difference in the number of boys and girls in either group. The age incidence of pica was in agreement with other investigations which indicate that this habit starts as soon as the child can crawl or walk with support, is most frequent between one and two years of age and then slowly disappears.<sup>2,5</sup> Pica was not reported during our interviews at six years of age or later (Table I).

TABLE I  
AGE DISTRIBUTION OF CHILDREN WITH A HISTORY  
OF PLASTER AND PAINT INGESTION

Age at Time of Interview (Months)	History of Pica #	%
8	9	3.7
12	47	19.5
18	68	28.3
24	86	35.6
36	20	8.3
48	6	2.5
60	5	2.1
All Ages	241	100.0

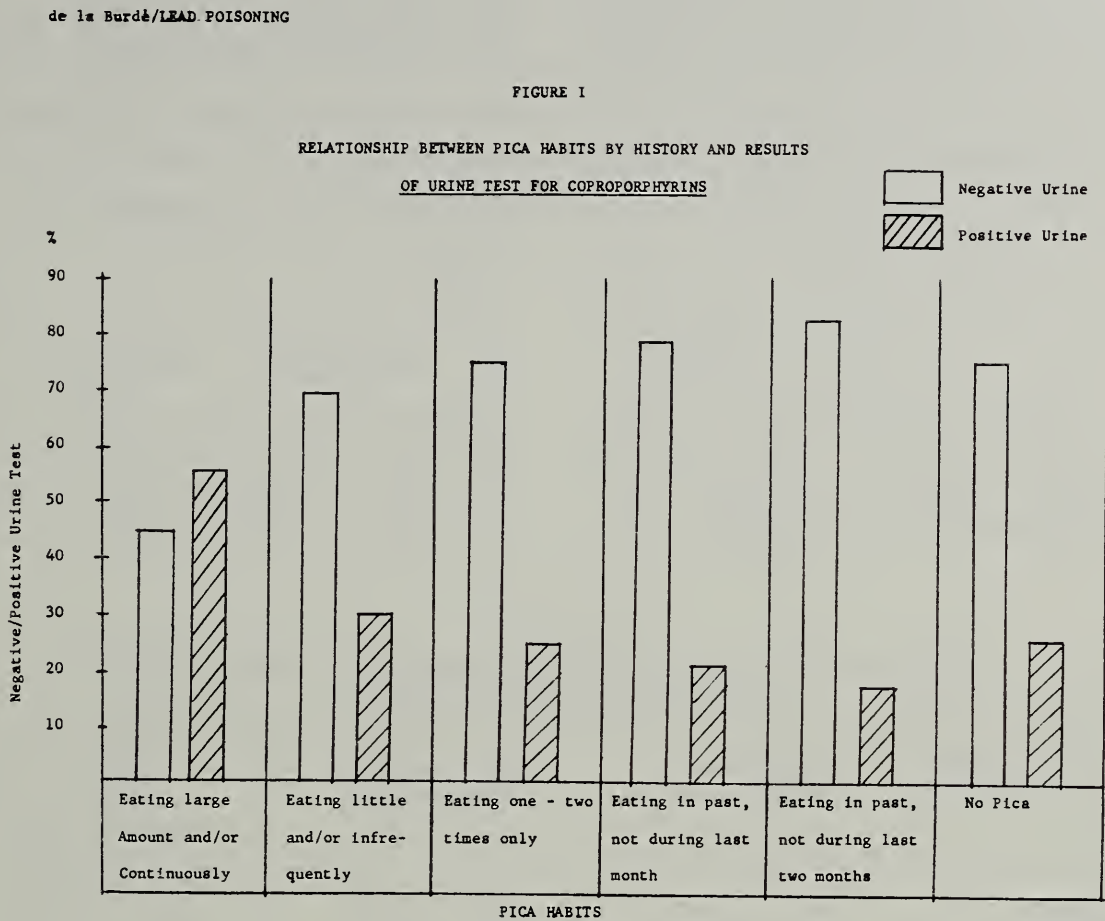
The results of the 207 urine examinations on pica children and 132 tests done on controls are shown in Table II. The incidence of C-negative and C-positive urines in children with pica was found to be relatable to the reported amount of plaster or paint ingested. There was a significant difference in the percentage of C-positive urine tests of patients with large and continuous plaster or paint ingestion compared to those who ate these substances infrequently or in the past ( $X^2$  15.51  $P < 0.001$ ) (Figure I).

A similar relationship could be shown when the pica habits of children with C-positive urine were compared to their BLLs, the most specific indicator for abnormal lead intake (Table III). Of the fifty-eight children with a history of eating large amounts of paint or plaster, twenty-seven (46.6%) had BLLs of 0.05 mgm% or higher (mean 0.047, range 0.01-0.18 mgm%). Only five (21.8%) of the



twenty-three children whose history indicated earlier or infrequent paint or plaster ingestion had elevated BLLs (mean 0.03, range 0.01 to 0.08 mgm%). The difference in the percentage

physical and neurological abnormalities suggestive of lead poisoning were not found. However, the review of the health interviews revealed that many mothers had reported



of abnormal blood lead values between these two groups was significant ( $X^2$  6.49,  $P < 0.02$ ). A small group of ten children with history of frequent pica, but C-negative urine tests were further evaluated. All had normal BLLs (mean 0.019, range 0.01 to 0.04 mgm%).

X-ray studies on twenty-six children with C-positive urine but without history of pica, showed that eight (30.8%) had metallic densities in the intestines or lead lines in the long bones or both. Of thirty-two control children with C-positive urine, eight (25.0%) had elevated BLLs. In summary, from a group of thirty-four children who had C-positive urine without history of pica, there were twelve (35.3%) with findings diagnostic for abnormal lead intake in addition to increased coproporphyrin excretion even though the habit of plaster or paint eating had been denied.

Despite thorough physical examinations,

symptoms which were considered suspicious of the prodromal stage of lead poisoning. These included anorexia, constipation, stomachache, vomiting, insomnia and increase in temper tantrums, all quite non-specific and shared by lead intoxication with other illnesses. Other historical information such as prolonged convulsions with fever, weakness of extremities, ataxia or severe irritability was, after exclusion of other causes, more suspicious for central nervous system involvement due to lead.

Forty-nine children (40.8%) with C-positive urine exhibited one or several of these symptoms compared to twenty-nine (13.3%) of those with C-negative urine tests ( $X^2$  33.30,  $P < 0.001$ ). Specific signs occurred in twenty-nine children (24.2%) with C-positive urine, but only in five (2.3%) with C-negative urine tests ( $X^2$  41.11,  $P < 0.001$ ).

## Discussion and Summary

Our study is in agreement with other observations that a high percentage of children living in slum areas do have pica and ingest lead-containing plaster and paint. Further, the risk of lead exposure in Richmond (population 223,000) is as great as that reported from larger cities and deserves equal attention. The need for extensive detection programs is emphasized by the large number of "well" children found to have excessive exposure to lead.

*Specific questioning for pica in our study increased the reported incidence forty-fold. A positive history was obtained in most cases only if one diligently inquired about this habit.* Most mothers, if aware of their children's paint and plaster ingestion, were able to give accurate information of the frequency and the

C-positive urines in the control group (25.8%) is indicative of unrecognized or unreported exposure to lead; more than one-third of these children had definite evidence of excessive lead exposure on further testing.

In seventy-three (64.5%) of 113 children with C-positive urine we found normal BLLs (0.04 mgm% or below), confirming the current opinion that the urinary coproporphyrin determination is not appropriate for selection of patients who need chelation therapy.

This study was carried out between 1964 and 1967, when urine coproporphyrin test and BLL determination were the most readily available tests for lead exposure and poisoning. More recently other tests have been advocated for screening purposes in determining those at risk from excessive lead intake. Var-

TABLE II  
OUTCOME OF THE URINE TEST FOR COPROPORPHYRINS IN CHILDREN WITH  
AND WITHOUT HISTORY OF PICA\*

Urine Test for Coproporphyrins	Children with History of Pica		Children without History of Pica		Total	
	#	%	#	%	#	%
Negative.....	121	58.5	98	74.2	219	64.6
Positive.....	86	41.5	34	25.8	120	35.4
Total.....	207	100.0	132	100.0	339	100.0

\*  $X^2 = 8.78$ ,  $P < 0.01$ .

amount of the ingested substances (Table III and Figure I). A negative history for pica was found to be unreliable; frequently, these children were cared for by a mother substitute and the mother was not aware of the habit.<sup>9</sup> Therefore, the selection of children in danger of imminent lead poisoning cannot be based on the history alone.

Can the urinary coproporphyrin test be used as an early indicator for increased lead exposure in clinically well children? In this study the majority of C-positive urine tests was found in the pica group with the greatest number (55.2%) occurring in the group of children with large and frequent plaster intake (Table II and Figure I). The incidence of

ious assays (delta-aminolevulinic acid dehydratase activity and free erythrocyte protoporphyrin in peripheral blood, delta-aminolevulinic acid in urine, changes in osmotic resistance of circulating red blood cells) have been suggested;<sup>3,10,11</sup> all lack the precision of the BLL which remains the single most significant test for lead intoxication. However, difficulties in the interpretation of borderline lead levels, the cost of lead level determinations by older methods, technical problems associated with newer procedures and the delay in development of precise micro methods have complicated the use of the BLL as a large scale screening test for lead exposure.<sup>3</sup>

Inclusion of the urinary Coproporphyrin



test in our screening program called attention to a number of children with exposure to lead who would not have been identified by BLL determinations alone. We believe our study confirms that a test measuring metabolic activity of lead is essential to predict total body lead burden. Despite its known shortcomings

ACKNOWLEDGMENTS

The authors are indebted to Mrs. Mary Ella Wickers and the Child Development Study staff interviewers for never-tiring efforts in data collection and to Mrs. Phyllis McDonald and Miss Jacquelin Pomeroy for their valuable assistance in the preparation of this paper.

TABLE III  
DISTRIBUTION OF LEAD LEVELS OF CHILDREN WITH POSITIVE URINARY COPROPORPHYRIN TESTS IN RELATION TO THEIR PICA HABITS

CHILDREN WITH PICA					CHILDREN WITHOUT PICA	
Blood Lead Level	Eating Large Amounts		Eating Small Amounts or in Past		#	%
	mgm %	#	%	#		
0.01	1	1.7	4	17.4	8	25.0
0.02	11	19.0	7	30.4	7	21.9
0.03	13	22.4	6	26.0	4	12.5
0.04	6	10.3	1	4.4	5	15.6
Normal Lead Level	31	53.4	18	78.2	24	75.0
0.05	7	12.1	3	13.0	3	9.4
0.06	6	10.3	1	4.4	3	9.4
0.07	9	15.5	—	—	2	6.2
0.08	2	3.5	1	4.4	—	—
0.09	1	1.7	—	—	—	—
0.1 and above	2	3.5	—	—	—	—
Elevated Lead Level	27	46.6	5	21.8	8	25.0

the urinary Coproporphyrin determination appeared to be a useful indicator of metabolically active lead with the added advantage of low expense and simplicity of testing. Variations in the amount of coproporphyrin excreted in the urine have been cited as being responsible for inconsistent findings in random urine samples. Therefore, one of the methods measuring adverse metabolic responses to lead in blood samples<sup>3</sup> may be better suited for large scale screening programs.

The population studied constituted more than ten percent of the total low income births in Richmond, from 1964 to 1967. Extrapolation of the number of children with increased lead burden to the total population at risk indicates that excessive exposure to lead, primarily related to housing, is a major public health problem in this community.

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### Society Is Willing to Accept Former Mental Hospital Patients

Society is much more willing to accept former mental hospital patients back into the outside world than has commonly been believed, a research study reported in the April issue of *Archives of General Psychiatry*, a publication of the American Medical Association, declares.

Only a small minority of former patients view the stigma of hospitalization as a serious problem, says the report of two Nashville, Tenn., researchers, Walter R. Gove, Ph.D., and Terry Fain, both of Vanderbilt University.

The study covers a group of 429 individuals who were patients in a state mental hospital and had been discharged a year or more in the past.

In most cases hospitalization did not seriously affect the employment status of the ex-patients. Only one respondent reported that

having been in a mental hospital made it difficult to get a job. Women ex-patients who returned to their homes were doing a good job as housewives. And the ex-patients reported that, as a whole, their economic situation was better following hospitalization.

Many patients reported that relationships with their spouses was better following the hospital stay. They also got along better with their children, and with other relatives, in-laws, friends and neighbors. Some patients reported they now spend more time on outside activities in the community.

"The public stereotype of the mentally ill is highly negative. When the public is presented with abstract cases, the indication is that they will seriously discriminate against persons labeled as mentally ill. However, when persons actually confront someone who has been labelled mentally ill they in fact do not seriously discriminate against them."



# Flexible Fiberoptic Bronchoscopy

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**The flexible fiberoptic bronchoscope, with its smaller diameter and flexibility has advantages over the rigid bronchoscope including ease of application, increased patient comfort, greater range of visualization, and photographic capabilities.**

**A**LTHOUGH INTRODUCED IN JAPAN in 1968, flexible fiberoptic bronchoscopy has received relatively little attention in this country. The ease of application, increased patient comfort, and wider range of visualization will establish the fiberoptic bronchoscope as the preferred instrument for examination of the tracheobronchial tree. In addition, its photographic capabilities make it an important teaching tool.

To date there have been very few reports in the literature concerning the use of this instrument. This article will describe the first eight months experience with the Olympus Bronchofiberscope, model BF type 5B at the Veteran's Administration Hospital, Richmond, and the Medical College of Virginia. During this period we have carried out 75 examinations for diagnostic purposes, and an additional 20 examinations on tracheostomized patients with respiratory failure.

## Instrument

The Olympus Bronchofiberscope, model BF, type 5B, has a working length of 55.7

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cm. and an outer diameter of 5.4 mm. The tube of the bronchofiberscope contains a light bundle, optics bundle, and a 1 mm aspiration channel. The tip may be rotated through an arc of 160 degrees by means of a lever control. The radius of the arc is 7 mm, and the maximum arc in one direction is 130 degrees.

A cytology brush is a standard accessory with both the type 5B and new type 5B2 bronchofiberscopes. Type 5B2 is in addition accompanied by 1 mm biopsy forceps which may be introduced through a 2 mm diameter aspiration channel.

## Procedure

The patient, in the fasting state, is examined in the treatment room or at the bedside. Operating room facilities are not required, as the procedure is carried out under local anesthesia with the patient fully awake.

In the initial use of the bronchofiberscope, topical pontocaine anesthesia was applied following premedication with oral nembutal and parenteral atropine and codeine. Recently, the technique of Smiddy has been employed.<sup>1</sup> Atropine is the sole premedication. Valium is administered intravenously in dosage from 2.5 to 10 mgm. to produce mild relaxation. The nasal and pharyngeal mucosa is then sprayed with 1% Xylocaine by nebulizer. With the patient in the sitting position, the bronchofiberscope, lubricated with Xylocaine jelly, is introduced into the pharynx transnasally. At this point 10 to 15 cc of 1% Xylocaine solution is slowly dripped over the vocal cords and into the tracheobronchial tree under direct vision. The instrument is then advanced through the cords and into the trachea. Additional anesthesia may be given at any time through the aspiration channel. The amount of Xylocaine generally required is 150-200 mgm. A total dose of 300 mgm. of Xylocaine is never exceeded.

Procedures lasting up to 45 minutes have been well tolerated with this method of anesthesia.

In patients who are on assisted ventilation, by way of either endotracheal tube or tracheostomy, little or no anesthesia is required. The bronchofiberscope is introduced through a sidearm attachment, using a sterile portion of a surgical glove as a diaphragm. In this manner there is no interruption in the ventilation of the patient.

Following passage into the tracheobronchial tree, systematic examination is carried out. All segmental orifices are entered, and appropriate subsegmental orifices to the fourth order bronchii may be examined. Suspicious areas are photographed and then brushed with the cytology brush. With peripheral lesions, bronchial brushing may be done blindly through the appropriate segmental orifice, or more accurately under fluoroscopic control. With the newer 5B2 fiberbronchoscope, biopsy under direct vision may be carried out.

Bronchoscopy with the flexible fiberoptic bronchoscope is much more easily carried out than with the rigid Jackson bronchoscope. The patient is in the sitting position, awake and able to cooperate with the examiner. Operating room facilities are not required and any well equipped examining or treatment room may be used without additional equipment. Patients may be examined at the bedside without interruption of critically necessary respirator assistance.

Diagnostic maneuvers with the Olympus model BF type 5B are limited to cytologic brushing and bronchial washings. The effectiveness of bronchial brushing requires meticulous preparation of the specimen and an interested, alert cytologist.

Differences between the hospitals in this study have been very apparent. The availability of biopsy forceps should overcome this limitation.

Visualization with the bronchofiberscope is much more complete than with the rigid bronchoscope. The small diameter and marked flexibility allow entrance to all segmental and most subsegmental bronchii. Photographic at-

tachments provide a permanent record of normal as well as abnormal structures for later comparison or as a teaching aid.

## Case Report

*Case Number One.* W. W., a 61 year old male farmer with a long history of smoking, was in good health until he suddenly developed hemoptysis two weeks prior to admission. Over the ensuing day, he produced approximately one quart of bright red bloody sputum. He did not cough blood again until two and a half days prior to admission, and as this persisted he was referred to the Veteran's Administration Hospital. A history of 25-30 pounds weight loss was elicited. Examination revealed blood pressure 230/130, grade III hypertensive retinopathy, and multiple small hemangiomas of the skin. On chest x-ray a hazy infiltrate was noted in the apical-posterior segment of the left upper lobe. On the fourth hospital day, following stabilization of the blood pressure, fiberoptic bronchoscopy was carried out. A mass, oozing blood, was found to be protruding from the orifice of the apical-posterior segment.

Tracheal washings and bronchial aspirate were negative for malignant cells and left scalene node biopsy revealed only sinus hyperplasia. At thoracotomy, there was a 5 cm. mass with surrounding blebs in the left apex. Frozen section was reported as scar tissue; however, as tumor could not be ruled out, a lobectomy was performed. Permanent sections revealed only fibrosis and hemorrhage. The patient has subsequently done well.

*Comment:* The increased range of visibility of the bronchofiberscope permitted exact localization of the site of bleeding in this case, which would not have been possible with the Jackson bronchoscope. Because of the previous marked hemoptysis, neither forceps nor brush biopsy was indicated.

*Case Number Two.* H. M., a 56 year old white male cigarette smoker, developed a right lower lobe pneumonia one month prior to admission, which failed to clear on adequate



antibiotic therapy. The admission x-ray revealed irregular nodular densities in the medial and posterior portions of the right lower lung field. Fiberoptic bronchoscopy was carried out on the second hospital day, and a small lesion was found just inside the orifice of the posterior basilar segment. The lesion was felt to be within the range of the standard Jackson bronchoscope, which was introduced following removal of the fiberscope, and a biopsy was taken. Pathological report suggested the presence of an oat cell carcinoma, however, the specimen was felt to be inadequate for a firm diagnosis.

Repeat biopsy through the rigid bronchoscope established the diagnosis of oat cell carcinoma of the lung. Prior to thoracotomy, microscopic hematuria led to the discovery of a hypernephroma and a left nephrectomy was performed. Subsequently the patient underwent right middle and lower lobectomy. He eventually succumbed to widespread metastases six months following his initial admission.

*Comment:* The original lesion was small and might have easily been overlooked with the rigid bronchoscope. The problems of the lack of biopsy forceps are well illustrated by this case. The newer BF/5B2 bronchoscope should avoid the difficulties experienced here.

*Case Number Three.* R. S., a 19 year old white male, was transferred to the Veteran's Administration Hospital, six weeks following an automobile accident. He was quadriplegic with a functional level of C4. Cervical laminectomy had been done within 12 hours of the injury, and he was given a tracheostomy at that time. He was gradually weaned from respiratory assistance several days prior to his transfer. On arrival at this hospital he was placed on IPPB therapy four times daily. Cervical spine x-rays were felt to indicate an unstable fracture dislocation at C<sub>4</sub>-C<sub>5</sub>, and surgical intervention was considered possible.

Two days following transfer, fever and increased shortness of breath developed. Continuous ventilatory assistance with a pressure cycled respirator was instituted. The symptoms persisted and two days later chest x-ray showed atelectasis of the entire left lung.

The bronchofiberscope was introduced through the sidearm of the Morch tracheostomy tube while ventilation was continued with the Bennett MA1 respirator. A mucus plug was found to be obstructing the left mainstem bronchus at the level of the upper lobe orifice. With fracturing of the plug with the bronchofiberscope, acetylcysteine installation, and suctioning the plug was removed. Immediate post bronchoscopy x-ray showed marked clearing and by the next morning the left lung was fully expanded.

*Comment:* The bronchofiberscope was used without any manipulation of the neck or cessation of needed respiratory assistance. We have found fiberoptic bronchoscopy invaluable in the treatment of respirator patients for evaluation of the tracheostomy site, removal of mucus plugs, and procuring specimens for bacteriologic and pathologic studies.

## Summary

Experience with the flexible fiberoptic bronchoscope over the initial eight months of its use has been reviewed. The advantages of fiberbronchoscopy are ease of examination, greater range of visualization, and photographic capabilities.

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# Intracerebral and Subdural Hematomas Complicating Anticoagulant Therapy

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**Although anticoagulant therapy may be of value in some cases of cerebrovascular disease, it does increase the danger of hemorrhage and may not prevent thrombosis and infarction.**

**When acute intracranial bleeding has occurred, the patient should be treated surgically without delay.**

**D**URING THE LAST TWO YEARS, we have had occasion to treat four patients who, while receiving anticoagulant therapy, developed cerebral infarctions and subsequently bled into the malacic brain. Two of these patients had atrial fibrillation, and we are certain that the infarcts had resulted from embolization. The other two patients had been on long-term anticoagulant therapy because of previous cerebral ischemic episodes. In all these patients, anticoagulation was felt to have significantly, if not primarily, contributed to the development of the intracerebral hematoma which rapidly assumed life-threatening proportions.

A fifth patient also receiving anticoagulants for a previous cerebral infarct, developed an acute subdural hematoma, secondary to a minor fall, which had been caused, in all likelihood, by another episode of cerebral ischemia with infarct.

We report these five cases in order to stress that patients while on anticoagulant therapy may develop secondary, life-threatening, intracranial hemorrhages.<sup>1,3,5,6,7,10,12,17,22,25.</sup>

*Case No. 1—E.S.:* Persistent clumsiness of the left lower extremity led to the admission of this fifty-one-year-old lady approximately two weeks after a minor fall. The disability developed the day after the accident and progressed slightly over the next forty-eight hours. After consulting her local physician, she was placed on Vasodilan and Coumadin but continued to complain of progressive disability.

On admission to the hospital, the patient was bright, alert, and completely oriented without evidence of a specific language impairment; however, her affect was considerably flattened. Her blood pressure was normal; however, her pulse was markedly irregular. An electrocardiogram confirmed the presence of atrial fibrillation.

The neurologic examination revealed inconsistent dyspraxia of her left lower leg; however, the deep tendon reflexes were symmetric. Her plantar toe responses were clearly flexor. Sensory examination elicited inconsistent responses to all modalities below the knee.

Seventy-two hours after admission, she complained of increased headache and began to experience episodic vomiting. Her neurologic deficit progressed to a clearly defined left hemiparesis. Coumadin was immediately discontinued, as a right frontal ischemic lesion of embolic nature became the prime clinical consideration. A subsequent electroencephalogram demonstrated evidence of a superficial



cortical destructive process in the right frontotemporal region. A brain scan also indicated a lesion in this area.

On the fifth day of admission, a right carotid arteriogram revealed a large, avascular mass lesion in the depths of the right frontoparietal region. A slight vascular stain suggested marked edema, with luxury perfusion surrounding the infarcted zone. Decadron and Mannitol were administered immediately. After initial improvement, the patient showed evidence of deterioration. On the ninth day of admission, she became comatose and developed a partial oculomotor palsy on the right.

A right parietal craniotomy disclosed a yellowish, softened brain with markedly flattened gyri. A small, cortical incision near the rolandic and post-central region revealed a large intracerebral hematoma encountered at a depth of three centimeters. A yellowish, discolored and markedly softened wall of the hematoma cavity was found after evacuation of the partially clotted hematoma. Biopsies of the wall were taken at different levels. Histological examination confirmed the presence of a recent hemorrhagic infarct.

After four days of excellent, post-operative progress, the Decadron was discontinued by tapering the dosage over a five-day period. Suddenly, on the fifth post-operative day, the patient became stuporous. Decadron was reinstituted to control cerebral edema. Temporary improvement ensued, only to be followed by deeper somnolence and a more pronounced left hemiparesis. The following day she became completely unresponsive, with fixed and dilated pupils. Mannitol was again given intravenously. A re-exploration was felt justified; however, a recurrent hematoma was not found. Operative findings revealed a softened, edematous brain. The patient expired on the tenth postoperative day. An autopsy could not be obtained.

*Case No. 2—T. K.:* This case relates the complications of a sixty-six-year-old male with rheumatic heart disease, mitral insufficiency, and stenosis. The onset of his neurologic de-

ficit began six to ten hours after having been discharged from the hospital where he had been convalescing from an acute myocardial infarction, complicated by atrial fibrillation and cardiac failure. These complications required the use of Lanoxin, Lasix, and Coumadin. His prothrombin time the morning of his discharge was twenty-two seconds.

His neurological presentation developed rather suddenly, when he was found to have developed impairment in his language function and inability to move his right side. Progression to unresponsiveness was quite rapid. The initial neurological examination revealed the eyes to be tonically deviated to the left. The pupils were round and reactive to light. There was no papilledema. A dense, right hemiparesis, with hyperreflexia and an extensor toe sign, was present. A lumbar puncture revealed an opening pressure of 180 millimeters of water. The fluid remained uniformly bloody through three tubes, and the supernatant was xanthochromic.

Vitamin K and appropriate amounts of Decadron were administered intravenously. A left carotid arteriogram revealed a large, avascular mass in the posterior aspect of the left frontal lobe. The ascending frontal artery could not be visualized.

Deterioration continued, despite attempts to control cerebral edema with Decadron. At craniotomy, a large, deep, frontoparietal intracerebral hematoma was evacuated, leaving a hematoma cavity of approximately forty cubic milliliters. The patient expired a few hours after surgery. As stressed by several investigators, mortality in deep capsular or pericapsular hematomas remains extremely high (21-22-23).

*Case No. 3—W.O.H.:* A sixty-five-year-old male maintained on Coumadin because of ischemic disease involving the posterior circulation. Prothrombin times had been closely monitored, being kept well within therapeutic range. His current neurologic deficit made its appearance some forty-six months after beginning long-term, anticoagulant therapy.

On February 19, 1970, the patient began to exhibit difficulty in expressing himself. Within forty-eight hours, this became more prominent and was associated with a left frontotemporal headache but no vomiting. There was no history of head trauma. The initial evaluation revealed him to be mentally clear, alert, and oriented, with no evidence of right/left disorientation. Language function was impaired most significantly in expressive speech. There was flattening of the right nasolabial fold. Extraocular movements were conjugate, and the pupils were asymmetrical in size, the left being smaller. Movement of the neck was unrestricted. Motor examination revealed minimal weakness of the right hand. Deep tendon reflexes were generally symmetrical, and an extensor plantar toe response was absent. Sensory examination revealed preservation of all modalities.

Prothrombin times through the first six days of admission ranged between eighteen to twenty-four seconds, with a control of twelve seconds. Electroencephalogram and brain scan on the third day of admission were normal. Rheomacrodex was infused intravenously twice daily during the first three days of admission. Oral anticoagulants were maintained. On the fifth day of admission, the patient became somnolent, and a definite right hemiparesis became apparent. Vitamin K was given intravenously. Within a short time, Decadron was also administered intravenously. Subsequently, a left carotid arteriogram revealed a large, avascular mass in the anterior and mid portions of the temporal lobe. No major arterial occlusion was found. Additional demonstration of a sessile aneurysm of the intracavernous portion of the left internal carotid artery was felt not to be clinically pertinent.

Immediately, exposure of the frontal and temporal-opercular areas was achieved via a temporal osteoplastic flap. The inferior temporal gyrus was discolored and softened. Numerous cortical hemorrhages were noted over the temporal convexity. A small, cortical incision was made near the temporal pole. At a depth of 4 millimeters, a large fluid and

partially clotted hematoma was found. A biopsy of the wall was obtained, revealing a recent hemorrhagic infarct.

The post-operative course has been highlighted by one transient ischemic phenomenon involving the left carotid circulation. Post-operatively, his neurological recovery has been felt to be nearly complete, and he has continued to do very well.

This case illustrates that vascular occlusions and cerebral infarcts continue to occur in patients on an adequate program of anticoagulant therapy. There is no question that Coumadin contributed to the development of an intracerebral hematoma. Additional aggravation by the use of Rheomacrodex is not clear. Likewise, this case illustrates that gratifying results can be obtained where the hematoma occupies certain areas of the brain, such as the anterior aspect of the frontal, the temporal, or the occipital lobes.

*Case No. 4—C.W.:* An eighty-year-old female who had been on anticoagulant therapy for twenty-two months because of episodes of vertebrobasilar insufficiency. Her neurological complications appeared initially as confusion and mild weakness of her left extremities. At the onset, her prothrombin time was eighteen seconds, with a control of twelve seconds. Coumadin was discontinued as soon as possible. Despite this measure, she became more lethargic and began to experience episodic vomiting. A complete hemiparesis was apparent on the second day of admission. This was followed by deep coma, requiring endotracheal intubation. Bilateral fixed and dilated pupils, accompanied by decerebrate posturing, quickly supervened.

Decadron and Vitamin K were quickly administered intravenously. A right carotid arteriogram showed extremely slow intracranial circulation, indicating massive increase of intracranial pressure, as well as a large, avascular mass lesion of the temporal lobe (Figs. 1—A & B). The patient was taken to surgery, where the temporal lobe was exposed through a right temporal, osteoplastic flap. The surface was very yellowish, especially in the mid



portion of the middle temporal gyrus. A small incision was made through the markedly softened cortex. At a depth of a few millimeters, a massive, intracerebral hemorrhage was found.

large, hemorrhagic complications which developed within the infarcted brain.

*Case No. 5—L.C.:* A seventy-five-year-old female who had been on long-term anticoagu-

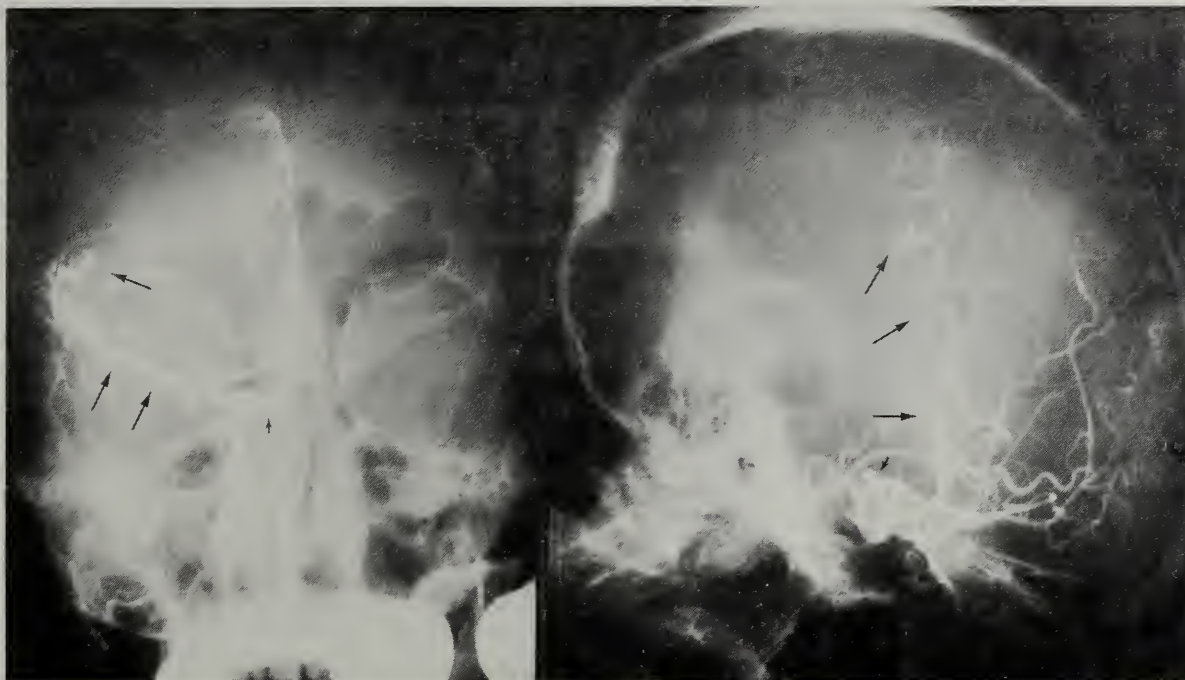


Fig. 1A (left) *Case 4* AP view of a right carotid arteriogram showing slight displacement of the pericallosal artery to the left with upward displacement of the middle cerebral artery (arrows). The sylvian point is displaced laterally.

Fig. 1B (right) Lateral view showing upward displacement of the middle cerebral artery complex (arrows) indicating an avascular mass in the right temporal lobe.

The small arrow points to what appears to be a small aneurysm of the internal carotid artery.

The bleeding had extended into the temporal horn, filling it with clots. Once the clots were removed, the choroid plexus and glomus were clearly identified. A point source of bleeding was not found. The hippocampal gyrus had herniated through the tentorial hiatus, but retraction above the tentorial margin was possible, without difficulty.

Postoperatively, the patient showed little evidence of rallying and expired several hours later. Autopsy demonstrated additional massive intracerebral hemorrhages in the basal ganglia, bilaterally, the mesencephalon, and the cerebellum. The ventricular system was filled with large clots. Histologic studies verified an ischemic lesion of the left temporal lobe.

In this patient, the clinical course was so progressive and rapid that even evacuation of the temporal lobe hematoma could not forestall the lethal exitus. Again, one must suspect that anticoagulation played a major role in the

lancet therapy for three years because of ischemic vascular disease. She had a long history of hypertension, and at the time of admission was also taking Hydrodiuril. Her recent neurologic deficit occurred forty-eight hours prior to neurologic consultation. She was found slumped over on the kitchen floor and, when initially evaluated at the hospital emergency facility, a left hemiparesis was apparent. During the first thirty-six hours, she remained somewhat somnolent but was able to respond to verbal commands. Intermittently, she seemed more confused and made some complaints about diffuse headache. During her third and fourth hospital days, she began to show deterioration and became unresponsive. Initial neurological examination demonstrated a left hemiparesis, with moderate, bilateral spasticity of upper and lower extremities, suggesting early brain stem compromise. An emergency echoencephalogram revealed a six millimeter



shift of the midline structures, from the right to left. Coumadin was immediately discontinued, and Aquamephyton was given intramuscularly. An emergency right carotid arteriogram revealed a moderately large, subdural collection over the right convexity, most marked in the temporal and lower parietal regions. There was also fairly marked elevation of the middle cerebral artery complex, indicating the possibility of a mass lesion within the temporal lobe (Fig. 2). A subdural hematoma was

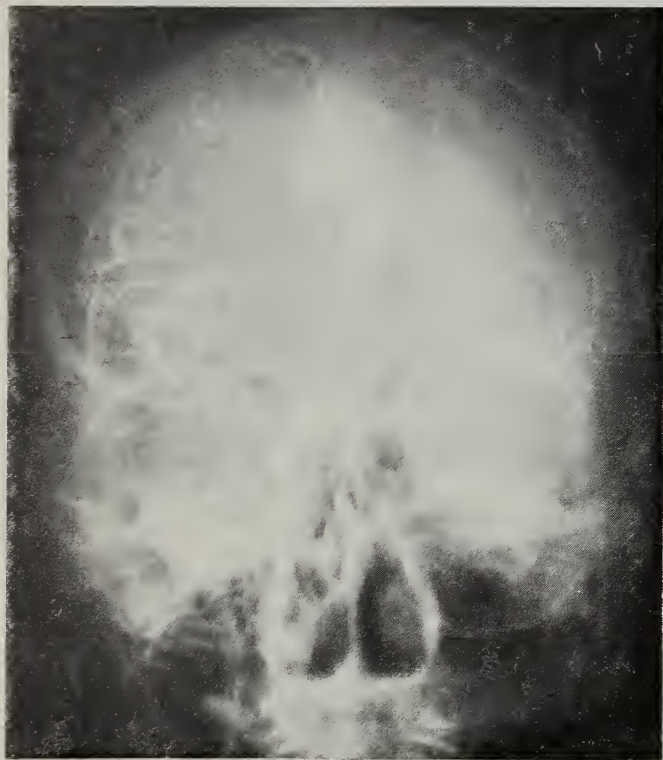


Fig. 2. Case 5 AP view of a right carotid arteriogram revealing an avascular space between the cortical surface and the inner table of the skull (arrows) diagnostic of a subdural collection of fluid.

evacuated through a right, subtemporal craniectomy. The underlying brain surface was edematous, and numerous venous hemorrhages were present over the cortical surface. The brain expanded rapidly, filling the subdural space.

The operative impression was that the findings were compatible with cerebral edema and perhaps contusion or infarction, antecedent to the subdural hematoma. Postoperatively, she remained comatose for approximately two weeks. Then she began to improve and was subsequently transferred to a nursing home.

## Discussion

Our knowledge of the pathophysiology and natural history of cerebrovascular disease has greatly expanded during the last two decades. We now, for instance, recognize the critical importance of separating occlusive cerebrovascular disease in three major categories: Transient ischemic attacks, progressive stroke (stroke in evolution), and completed stroke. Furthermore, the role of stenotic and/or ulcerative lesions of the extracranial vessels as causes of cerebrovascular insufficiency has become generally accepted, and great advances have been made for their surgical correction.

Medical treatment remains somewhat unsettled. In selected cases, it may include the use of anticoagulants, antihypertensive drugs, and measures to correct abnormal lipid metabolism. During the last several years, the usefulness of low molecular Dextran in improving the microcirculation has been suggested.<sup>11</sup> More recently, agents which have been found to reduce platelet adhesiveness, such as Persantine, aspirin, and Butazolidin, are being used in the treatment of transient ischemic attacks with some degree of success.<sup>16,26,27,28,29</sup> Dexamethasone has been found to be a useful adjunct to the therapy of the patient with a severe stroke. The beneficial effects of the steroid are in part due to its ability to decrease the brain edema which accompanies the infarcts.<sup>19,23</sup>

From numerous and detailed studies concerning the use of anticoagulation in the treatment of occlusive cerebrovascular disease, it has become apparent that the initial enthusiasm about the efficacy of this form of therapy has been dampened by the fairly large number of both intra and extra-cranial hemorrhagic complications.<sup>1,2,3,5,8,13,15,22,24</sup> For years, investigators have stressed that the use of anticoagulants in completed strokes should be abandoned. Furthermore, the use of anticoagulation to prevent subsequent cerebrovascular catastrophe in patients who have sustained a major stroke is not justified, for the risk of serious hemorrhagic complications is too great. More significantly, from all these studies, as well as from our own personal observations (see cases



3, 4, and 5), we have learned that long-term anticoagulant therapy, unfortunately will not always prevent the occurrence of other thrombotic events leading to new infarcts. The increase of the death rate in treated patients has been shown to be, at least in part, due to the occurrence of cerebral hemorrhages, which therefore should be regarded as a distinct and major risk in this form of treatment of cerebrovascular disease.<sup>15</sup>

It has been suggested that rapid anticoagulation may retard or forestall the progression of an actively advancing cerebrovascular occlusion (stroke in evolution); however, as soon as the neurological picture has stabilized itself, anticoagulation should be discontinued.

Even the commonly accepted view that transient ischemic attacks are usually followed by cerebral infarctions has been questioned.<sup>3-7</sup> Then it becomes questionable whether long-term anticoagulation should be accepted as the optimal form of therapy, even in this group of patients.

In the use of anticoagulants for the treatment of cerebral infarcts secondary to acute embolism, there is agreement over the fact that in these cases the risk of intracerebral hemorrhagic complications is very great. This has led to the suggestion that anticoagulant therapy should not be initiated for at least three weeks after cerebral embolism. There is, however, a feeling among certain investigators that since a significant number of recurrent cerebral emboli of cardiac origin will occur within the first few weeks after the initial episode, the risk of such recurrent embolic phenomena is greater than the risk of hemorrhagic complications.<sup>7-13</sup>

Hypertension, undoubtedly, entails a greater risk of hemorrhagic complications in patients with cerebrovascular disease, and this relationship has been confirmed by several investigators.<sup>3,4,7,14,15,24</sup> Indeed, severe hypertension may be another contraindication for entertaining anticoagulant therapy in these patients.

In addition, it should be emphasized that satisfactory, long-term anticoagulation therapy is difficult and, to say the least, inconvenient.

Even with close personal supervision, hemorrhagic complications do occur. Furthermore, the precise control of coagulation mechanisms can be complicated by the interaction of numerous other drugs.<sup>2</sup>

### Diagnosis and Surgical Therapy

When a patient receiving anticoagulant therapy develops signs of progressive neurological deficits, with deterioration of the level of consciousness, an intracranial, hemorrhagic complication should be immediately suspected.<sup>10,12,17,18,21,25</sup> Both in cases of intracerebral hemorrhages and of subdural collections of blood, time is vital. Such blood collections behave like any other acute, expanding intracranial lesion. The longer these processes go unrecognized, the more severe and irreversible the effects will be. If at all possible, one should recognize these complications before symptoms or signs of decompensation (such as profound alteration of level of consciousness, third nerve palsy, decerebrate rigidity, etc.) occur. Thus, early diagnosis is of paramount importance if surgical therapy is hoped to be of any benefit.

A spinal puncture is not definitely necessary for some patients with intracranial bleeding may not have any blood in the spinal fluid for several hours after the onset of bleeding. The spinal tap may also precipitate a tentorial or foramen magnum herniation, not infrequently causing an irreversible situation. If a spinal tap is to be done at all, the neurosurgeon should be alerted and adequate preparation for immediate craniotomy made. Furthermore, one must be certain that the hypocoagulability of the blood has been corrected. Disastrous, spinal, epidural hemorrhages can indeed occur.<sup>12-20</sup>

If a calcified pineal gland is present, displacement of this structure, as shown by AP or PA views of the skull, will undoubtedly be of help. Comparison could be made with the position of the calcification in previous skull x-rays, if available.

Ultrasonic echoencephalography can be performed rapidly and should probably be the first diagnostic tool to be used. Experience

with this investigatory tool is, of course, necessary and with the proper skill, it is possible in a large number of patients to state with some confidence whether the midline structures of the brain are displaced or not.

Radioisotopic brain scanning, if the course of the neurological picture will allow, can be of great help in localizing the hematoma, whether it be intracerebral or subdural. It must be remembered, however, that false negative scans occur in a large number of patients if the subdural hematoma is fairly recent.<sup>9</sup> Early pickup of the radioactive tracer by blood in intracerebral hematomas has been recognized and offers distinct advantages in the diagnosis of these hemorrhages. Unfortunately, as in four of our five cases, the progression of the neurological deterioration was so rapid that there was no time to carry out this investigation.

Arteriography remains the single, most accurate and rapid tool of diagnosis and should be carried out without delay. Of course, one must be certain that the prothrombin and clotting times are back to normal prior to undertaking these studies. Both surface or deep-seated blood collections can, with this diagnostic tool, be readily recognized and accurately localized.

Evacuation of the subdural hematoma should be carried out as soon as the correct diagnosis has been reached. If the hematoma has been present for a long time, the underlying brain may not expand rapidly. In these cases, it is wise to drain the subdural space for twenty-four or forty-eight hours. In cases of acute subdural collections of blood, the cerebral hemisphere underlying it may be edematous and contused. The use of Decadron and of intravenous Mannitol will be of great help in combating cerebral edema in these cases.

An enlarging, intracerebral hematoma is a lethal pathological process, which entails a very high mortality rate of 65 to 90 percent. While the results of conservative or surgical therapy may not be very different, nevertheless a conservative attitude is not justified, except in moribund patients with signs of prolonged and

irreversible brain stem decompensation. The feeling of the treating physicians should be that each patient represents an individual problem and that the decision concerning the best possible form of therapy should be based on clinical data and upon other ancillary procedures, especially arteriography. Statistics should not rule the therapy, and an aggressive approach, while it will not cure all patients with an intracerebral hematoma, will certainly save lives and reduce morbidity. This is particularly true if the hematoma occupies an area, often quite large, other than the internal capsule, (temporal or occipital lobes).

Needle aspiration through a burr hole, although indicated in some desperate cases, is generally not adequate, since it would be impossible to aspirate but the liquid portion of the hematoma. A small bone flap can be rapidly raised, preferably not directly over the sensory or motor areas of the brain. Through a small, transcortical incision, adequate exposure of the deep, white matter and of the hematoma can be readily obtained. Inspection of the walls of the hematoma cavity is necessary and, in fact, we have made it a routine procedure to obtain single or multiple biopsy specimens, which will give us the clue as to the presence of infarctions or of small, arteriovenous malformations, or even tumors.

## Conclusion

While our knowledge of the diagnosis and pathophysiology of cerebrovascular disease has unquestionably made tremendous strides during the past twenty years, treatment has definitely lagged behind. There are still a number of unresolved questions regarding the role and efficacy of anticoagulant therapy, at least in some types of stroke. The natural history of the strokes, as well as the lack of uniformity in the use of terms and definitions (perhaps even the personal bias of the investigators) make the evaluation of anticoagulant therapy difficult. There is no question, however, that the overriding hazard of anticoagulant therapy is hemorrhage.



While it is not the purpose of this presentation to deny the value of anticoagulant therapy in selected cerebrovascular disorders, nevertheless we feel that there is a definite need to re-emphasize several points:

- (1) Patients receiving anticoagulant therapy may still develop cerebral infarcts, as in our cases 3, 4 and 5.
- (2) If an infarct occurs and the anticoagulants are not promptly discontinued, an intracerebral hematoma may develop.
- (3) The hematoma occurring in an area of infarcted brain can enlarge quite rapidly, posing a very serious and immediate threat to life, requiring prompt recognition and urgent medical and neurosurgical therapy.
- (4) Patients receiving anticoagulant therapy for cerebral embolism of cardiac origin

must be observed very closely, at least during the first few weeks of treatment, for some of them will develop intracerebral hematomas, which may be of lethal proportions, as in our cases 1 and 2.

- (5) Head trauma of any degree in patients on anticoagulant treatment may precipitate the serious complications of an acute subdural hematoma.
- (6) While surgery will not save all patients with acute intracranial bleeding, efforts should be made to promptly diagnose and treat these complications.

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*Note:* A list of references may be obtained from the authors.

### **Pick the Right Parents and Live to Be 100**

Want to live to be 100?

An editorial in the May 28th issue of the *Journal of the American Medical Association* tells how.

First, select a father and mother who both lived to 100-plus. Then, lead a physically active life and maintain a tranquil mind.

Gerontologists until recently believed that diet and climate and mode of life were important factors in living to be 100 or more. Now they're not so certain.

In a mountain valley in Ecuador live people of Spanish origin who regard a life span of 100 years as unexceptional. They are mainly vegetarians subsisting on a diet that averages about 1,700 calories a day for an adult. They live tranquilly, but not idly in a remarkably favorable environment. They also smoke 40

to 60 cigarets and drink two to four cups of rum daily.

In contrast are the people of Abkhazia in the Georgian Soviet Socialist Republic. Their longevity is well known. A writer recently interviewed an Abkhazian of 130 years who was mentally alert, and a chain smoker of cigarets since 1910. Abkhazians eat and drink heartily and sometimes are obese. But even those who are overweight are vigorously active.

The Ecuadorean group live in a remote area, isolated by high mountains, and thus have a genetically stable population. But the group of oldsters in the Soviet Union are a mix of ethnic groups.

One fact offers a clue. Almost all interviewed centenarians told of long-lived parents.

# Cat Scratch Induced Tularemia

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**A twenty-five year old male student presented with fever, a cat scratch on his left index finger, and left axillary adenopathy. Although cat-scratch fever was suspected initially, titers for tularemia were diagnostic. Response to streptomycin was prompt, and the patient recovered uneventfully.**

**T**HE TRANSMISSION OF TULAREMIA by rabbits, rodents, ticks, and deer flies is well known.<sup>1</sup> This case report emphasizes that the ordinary domestic household cat may occasionally be the source of infection.<sup>1,2</sup> In addition, the correct diagnosis may be obscured by the fact that cat scratch fever and *Pasteurella multocida* may also be acquired from this animal.<sup>3,4</sup>

## Case Report

This 25-year old male University of Virginia graduate student was in good health until 18 days prior to admission when his pet cat scratched the distal palmar surface of his left index finger. Sixteen days prior to admission the scratch became painful, swollen and erythematous, and the patient noted swollen, tender left axillary lymph nodes. He was begun on potassium phenoxymethyl penicillin tablets 500 mgs every six hours which he took for four days. Eleven days prior to admission

he noted fever, myalgia and headache which persisted until admission. Needle aspiration of the finger tip performed seven days prior to admission revealed no fluid and he was then switched to cloxacillin. Four days prior to admission the lesion on the finger tip was incised and drained of .5 cc yellow fluid. Gram stain and culture of this fluid were negative. Three days prior to admission the patient developed a non-productive cough. Because of persistence of all these symptoms and fever, he was hospitalized.

The patient denied exposure to wild animals, ticks or deer flies. His housecat had not been ill, but frequented wooded areas known to harbor wild rabbits, rodents and ticks. The patient was employed in a laboratory where he had worked with four white, healthy laboratory rabbits during the previous six months.

Physical examination revealed a mildly toxic appearing young man with a temperature of 39.0°C, pulse 72, respirations 16, and blood pressure 120/70. There was erythema and swelling of the distal palmar surface of the left index finger. A crusted linear scar was present at the site of the previous incision and drainage. There was a tender, soft, non-fluctuant 2x3 cm lymph node in the left axilla. The chest was clear to percussion and auscultation. There was no hepatosplenomegaly, rash, stiff neck, or other lymphadenopathy.

The hematocrit was 41%, white blood cell count 6300 with 48% lymphocytes (10% atypical), 44% neutrophils, 5% monocytes and 3% bands. Urinalysis was normal. VDRL, antistreptolysin 0 titer, and heterophile test were all negative. Febrile agglutinins revealed negative titers for typhoid H and O antigens. Paratyphoid B titer revealed a positive reaction at 1/320 dilution. Tularensis titers were positive at dilutions of 1/10,240 and 1/5120 one

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week apart. *Brucella* titers were positive at the 1/2560 dilution. Acute and convalescent sera for toxoplasmosis were negative by immunofluorescent antibody. Intermediate strength PPD was negative at 48 hours. Blood cultures were negative. Chest x-ray showed a faint left lower lobe infiltrate. Film of the left index finger showed no osteomyelitis. Cat scratch antigen was unavailable.

One day after admission a second incision and drainage of the left index finger was performed and gram stain of this material showed no organisms. Bacterial and viral cultures were negative. No antibiotics were given until return of the febrile agglutinins on the third hospital day when streptomycin was begun .5 gm IM every 12 hours with dramatic resolution of symptoms in 36 hours. He continued to feel well and was discharged on tetracycline after one week of streptomycin therapy. His chest film cleared. A followup serology six months later revealed tularensis titers still positive 1/2560 and brucella titers positive 1/320. Agglutination titers for tularemia on the cat were positive at 1/160 and negative on the four laboratory rabbits.

### Discussion

The transmission of tularemia by some 60 different species of animals including rabbits, foxes, squirrels, rats, mice, and muskrats has been established.<sup>5</sup> The cat is one of the domestic animals which shows a relatively high susceptibility to tularemia.<sup>5</sup> Francis in 1924, and Green and Wade in 1928 investigated tularemia in experimentally infected cats.<sup>5</sup> Collins reported the first cases of naturally infected cats in 1933.<sup>5</sup>

The Public Health Service reported 13 human cases from cats in 1940 and by 1950 Foshay had added seven more. Sanders and Hahn reported on 106 cases of tularemia in Louisiana, and the cat was the host in two of these.<sup>6</sup> Tularemia is becoming less frequent with some 900 cases per year reported in 1950 and only 172 cases in the United States in 1970.<sup>7</sup> The peak incidence was in 1939 when 2,291 cases were reported.<sup>7</sup> The cat, then,

is an unusual source for this infection and presumably becomes contaminated by catching infected wild rodents and rabbits.

In the present case cat scratch fever was felt to be a more likely diagnosis until the positive agglutination titre for tularemia returned. Significant titers in human cases of tularemia are 1/80 to 1/160 and usually appear during the second week of illness. Maximum titers are reached during the fourth to seventh week. Residual titers may persist for years. A two-fold or four-fold rise in titer one week apart is considered diagnostic. Cross-agglutination can occur between *P. tularensis* and *Brucella abortus* (as was noted in this case) and *Proteus vulgaris* (OX19). In Shaffer's three cases of cat induced tularemia a positive titer for tularemia was found in two of the three cats (1/360 and 1/50).<sup>2</sup> Pneumonia and/or pleural effusion was observed in 13.5% of the ulceroglandular form of this disease in the series reported by Sanders and Hahn.<sup>6</sup>

The very high level of agglutinins, the fall in titer over six months, the ulceroglandular presentation, the pneumonia, and the dramatic response to therapy all serve to strengthen the diagnosis of tularemia in this case. The significantly positive titer in the cat implicates its role in the transmission.

In the 160 patients with cat scratch disease reported by Daniels and MacMurray, agglutinations for tularemia were negative in the 47 patients so studied.<sup>3</sup> The clinical picture of cat scratch disease may closely resemble ulceroglandular tularemia.<sup>3</sup> Cats are known to harbor *Pasteurella multocida* in their mouths.<sup>4,8</sup> Infection with this organism via the scratch was considered although negative cultures and the failure to respond to penicillin and cloxacillin seemed to make this unlikely. Other causes of an ulceroglandular illness in man which have been traced to cats include toxoplasmosis, anthrax, bovine tuberculosis, rat bite fever and various fungi.<sup>8</sup>

Since the clinical picture of cat scratch disease and tularemia can be indistinguishable, the necessity for obtaining tularemia agglutinations in these cases is obvious. Otherwise, a

treatable but potentially serious illness, tularemia, may be mistaken for cat scratch disease, one with an excellent prognosis.

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### Boating

Small boats by the hundreds of thousands are back in the water, freshly scraped and painted after a winter of storage.

The American Medical Association reminds that boating accidents become more prevalent each season, as more neophytes acquire boats and take to the water. Pamphlets on boating safety are available in many sporting goods stores and at boat and motor dealers and marinas, and through the U.S. Coast Guard. Even if you think you know how to handle a boat, play it safe. Get a safety booklet and study it.

Common sense and good manners are the cardinal safety rules in boating. Show respect for other boats, swimmers and fishermen. It doesn't take much knowledge of boating to know that a big lake on a windy day can be dangerous for small craft.

Know the capacity of your boat and don't overload it. Don't stand up or change seats in a small craft while it is under way.

Make certain your boat contains life preservers for each passenger. Life jackets should be worn by small children and non-swimmers. Know the Federal and State regulations governing registration and operation of your boat.

Only an irresponsible skipper will buzz a dock, wharf or anchored craft. You may miss. Reduce speed through anchorages. Your wake can damage other property. Avoid boating too close to water skiers, fishermen and other boats. Don't jump or dive from a moving boat. You may have the breath knocked out of you, or hit floating debris.

Stay within easy range of the shore on large bodies of water. Sudden squalls can play havoc with the unwary boatsman. If your boat overturns, stay with it. The chances are that someone will pick you up. Very few of us are in good enough physical condition for a long swim in rough or cold water.



# An Extrathyroid Parathyroid Adenoma Presenting as a "Cold" Nodule on I<sup>131</sup> Thyroid Scan

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**I**<sup>131</sup> SCANNING of the thyroid is a readily available adjunct to localization of some parathyroid tumors. Yet a recent review of the literature yielded only two cases of parathyroid adenomas localized by a preoperative thyroid scintiscan.<sup>3,4</sup> A third one was an incidental finding during thyroid exploration for an asymptomatic "thyroid nodule".<sup>1</sup> All of the three are intrathyroid parathyroid adenomas. The following case report describes a parathyroid adenoma exerting pressure on the thyroid capsule producing a defect, thus interpreted as a "cold" nodule on I<sup>131</sup> thyroid scan.

Hospital on November 9, 1971, for persistent hypercalcemia. She had been followed in the outpatient department for two years with hypercalcemia fluctuating from 11.5 to 14 mg% and a normal to below normal range of serum phosphorus. She had been asymptomatic until several months prior to admission. She complained of generalized bone pain mainly in the back and legs requiring several emergency room admissions. It is of significance that at age 34, she had enucleation of right eye for advanced cataract.

Pertinent physical findings showed an obese

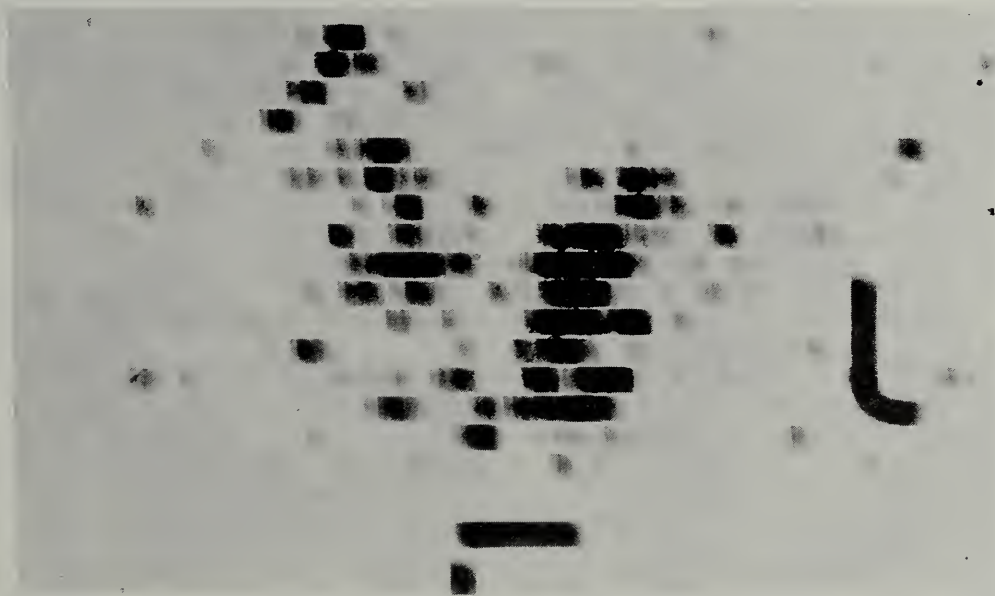


Fig. 1. Defect on right lower lobe interpreted as cold nodule.

## Case Report

M.S. a 52 year old woman, Gravida XV, Para XIV Aborta I, was admitted to De Paul

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lady in no distress. She had a prosthetic right eye. The neck was thick without any abnormal palpable masses or tenderness. Chest and abdomen were unremarkable. There was some tenderness in the proximal and distal joints.



Laboratory studies on admission were as follows: Normal CBC and serum electrolytes, urinalysis has 3+ proteinuria, serum calcium 12.6 mg%, serum phosphorus 2.5 mg%, alkaline phosphatase 105 I.U., serum glucose 135 mg%, serum total protein 7.6 gm%, albumin 3.6 gm%, globulin 4.0 gm%, serum electrophoresis unremarkable, urine calcium 285 mg/24 hours, Ionizable calcium level: unbound calcium 3.7 meq/L, total calcium 5.9 meq/L: percent unbound = 62% of total.



Fig. 2. Injection of the right subclavian artery showed the lateral displacement of the caudal loop of the inferior thyroid artery and the proximal loop of the vertebral artery. A "tumor blush" is noted in the area of the transverse process of C<sub>7</sub> and T<sub>1</sub>.

Upper G.I. series, intravenous pyelogram and x-ray of the hands and clavicles were negative. The spine showed arthritic changes. A selective aortic arch injection of contrast medium to both thyrocervical trunks revealed a displacement of the caudal loop of the right inferior thyroid artery with a "tumor blush" consistent with a parathyroid tumor. A thyroid scan revealed a "cold" nodule in the right lower lobe. The I<sup>131</sup> uptake for 24 hours and T<sub>3</sub> resin test were within the euthyroid range.

She underwent surgery on November 15, 1971. On exploration a 3.5 x 1.2 x 2.5 cm smooth, reddish-brown mass was found in the tracheo-esophageal groove producing pressure on the *inferior portion of the right thyroid lobe* from behind upwards. It weighed 3.5

gms. Pathological diagnosis of this mass was parathyroid adenoma composed predominantly of chief cells (Fig. 4). Prior to removal of the mass the left inferior parathyroid gland was initially biopsied and reported as normal. The superior parathyroid glands could not be found, so that a right total thyroid lobectomy was carried out in view of a "cold" nodule on scintiscan. However, the entire thyroid tissue was normal on microscopy except for a normal parathyroid gland partially embedded within the *superior pole*. Her postoperative course was uneventful with the return of serum calcium and phosphorus to normal range with gradual disappearance of bone pain.



Fig. 3. The operative field showing the parathyroid adenoma to displace the inferior portion of the right thyroid from behind upwards.

### Discussion

A small percentage of parathyroid adenomas are embedded within the thyroid gland. The I<sup>131</sup> thyroid scan, which has become an important diagnostic tool in the evaluation of thyroid disease,<sup>6</sup> will show these aberrant tissues as non-functioning thyroid nodules.

As in this patient, when the clinical history and laboratory findings are strongly suggestive of primary hyperparathyroidism, pre-operative localization of a parathyroid adenoma may be very helpful. Only about 5% of parathyroid adenomas without hypercalcemic crisis are palpable.<sup>7</sup> There is no absolute single test or



procedure to localize the tumor. The parathyroid scan is truly experimental.<sup>8</sup>

A selective aortic arch arteriography and I<sup>131</sup> thyroid scan were helpful in this case. The defect on the scan (Fig. 1) which coincided with the area of displacement of the right inferior thyroid artery plus a tumor blush on arteriogram (Fig. 2) was thought preoperatively to be a separate thyroid nodule. But microscopy of the resected right thyroid lobe revealed normal thyroid tissue. This defect was produced by the parathyroid adenoma which pushed the inferior portion of the right thyroid lobe from behind upwards (Fig. 3). This makes the value of I<sup>131</sup> thyroid scan more apparent in the localization not only of an intrathyroid but also of an extrathyroid parathyroid adenoma. Newton and Eisenberg<sup>5</sup>

have cautioned that although angiography may demonstrate a mass closely related to the inferior thyroid artery, the differential diagnosis between thyroid and parathyroid masses may be impossible. Obviously the ultimate answer is the histologic demonstration of the lesion. In this patient, we found all but the left superior parathyroid gland. Although about 7% of patients with primary hyperparathyroidism have more than one parathyroid adenoma<sup>8</sup> the demonstration of two normal parathyroids in our case is definitely in favor of a single lesion.

### Summary

A case of an extrathyroid parathyroid adenoma producing a defect on I<sup>131</sup> thyroid scan is reported.

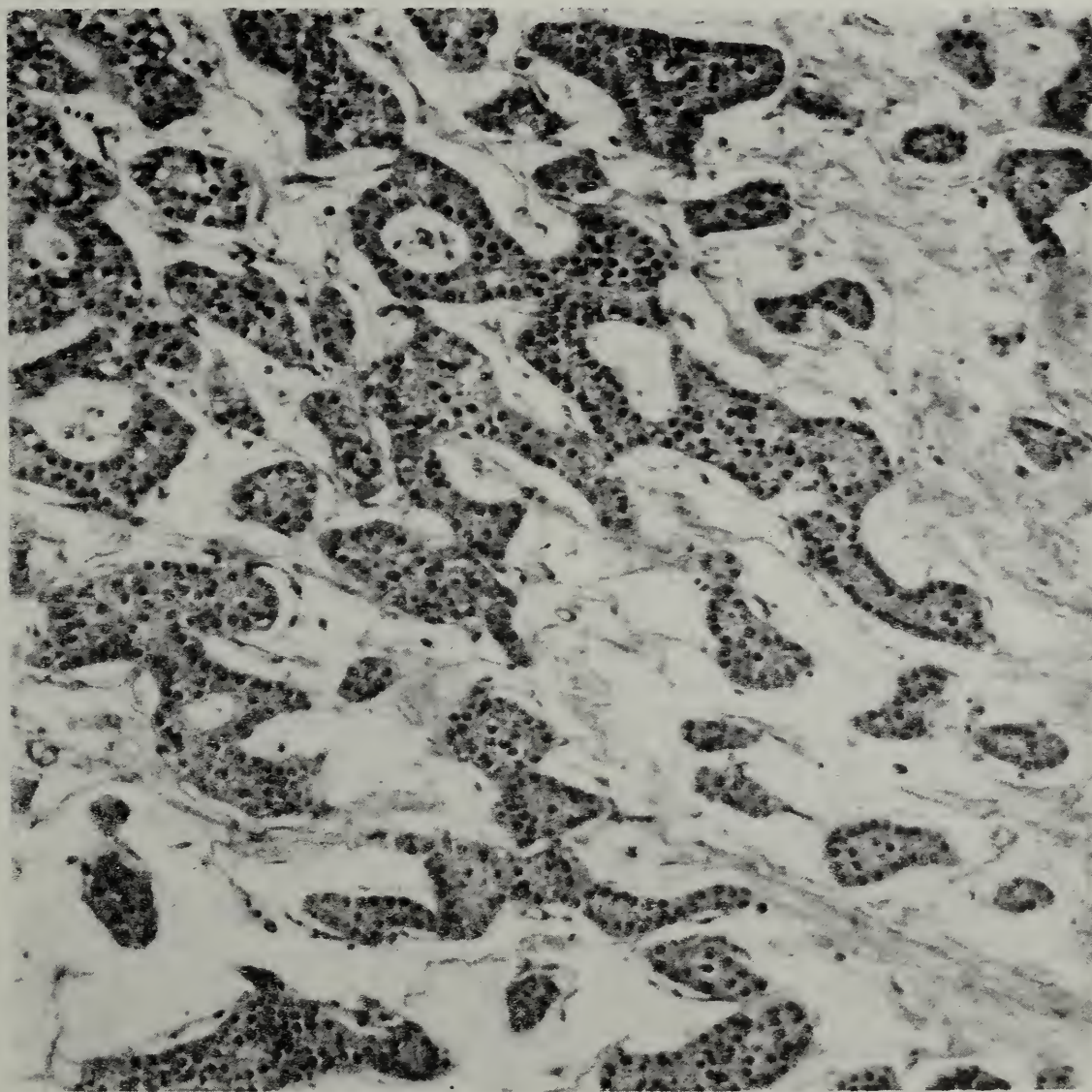


Fig. 4. The tumor is composed of chief cells arranged in solid cords and pseudoacinar structures supported by a delicate fibrovascular structure. X 450.



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### Simpler Rabies Vaccine Successful

Successful human test of a new and much safer rabies vaccine is reported in the May 21st issue of the *Journal of the American Medical Association*.

The vaccine uses rabies virus grown in human diploid cell cultures rather than in cultures of duck embryo, the common source of the vaccine now in general use.

Antibody titers (the body's own defense mechanism against the rabies virus) after two inoculations of the new vaccine were similar to those previously reported after 14 inoculations of duck embryo vaccine. Also, only minimal local reactions and no general reactions to the new vaccine were noted.

The new vaccine was developed at the Wistar Institute of Anatomy and Biology,

World Health Organization, International Reference Center for Rabies, in Philadelphia. It was tested on 16 volunteers who are adult members of the staff of the Wistar Institute. Authors of the JAMA report are Tadeusz J. Wiktor, DMV; Stanley A. Plotkin, M.D., and Doris W. Grella.

Additional studies are now under way at Wistar to determine the minimum number of inoculations needed to produce an antibody response in 100 per cent of individuals, and to determine the proper time interval between inoculations. In a more recent study, 100 per cent response was achieved with three doses of human cell culture vaccine given over one week.



# The Association of Umbilical Hernia with Traumatic Perforation of the Intestine

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**A case of intestinal perforation associated with blunt abdominal trauma and an abdominal wall hernia other than in the inguinal region is presented. This case emphasizes the fact that abdominal trauma, no matter how slight, in the presence of a hernia, umbilical as well as inguinal, in a male or female, child or adult, must alert the physician to consider possible intestinal perforation whether the bowel is incarcerated in the hernia or not.**

**T**HE REPORTED CASES of intestinal perforation in patients with hernias who incurred blunt abdominal trauma occurred in the presence of an *inguinal* hernia in middle-aged to elderly males. The case report that follows is that of an eight year old female with an *umbilical* hernia who sustained blunt abdominal trauma requiring surgery to repair a perforation of the jejunum.

## Case Report

OA #207429: An eight year old female was admitted from the Emergency Room of Beth Israel Medical Center four hours after being struck in the abdomen by the bumper of an

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automobile. There was no history of unconsciousness. On physical examination, the abdomen was noted to be diffusely tender, especially in the area of the umbilicus where a small umbilical defect was present without overt herniation. There was no hematoma, ecchymosis, or other evidence of trauma to the abdominal wall. Bowel sounds were hypoactive and an x-ray examination revealed normal gas pattern with no free gas beneath the diaphragm. (The hemoglobin was 12.3 gms. per 100 cc. and the white blood count was 18,000/mm<sup>3</sup> with 76 polys, 2 stabs, 22 lymphs.) An intravenous pyelogram was performed to exclude urinary involvement and was reported as negative. Paracentesis was performed and neither fluid nor blood was obtained.

Exploratory laparotomy was carried out six hours after trauma as the patient's abdomen became more tender during this period of observation. The exploration revealed 20-30 cc. of cloudy fluid in the peritoneal cavity and a five millimeter perforation of the jejunum with mucosal eversion approximately 25 cms. from the ligament of Treitz on the antimesenteric border. Surrounding the perforation was a three millimeter zone of contused bowel. The perforated segment of bowel was located near the umbilical defect and there was no evidence of previous incarceration. The perforation was plicated in two layers with fine silk sutures. The umbilical hernia was also repaired. Postoperatively the patient did well and was discharged nine days after admission.

## Discussion

Aird<sup>1</sup> (1936) presented the association of traumatic intestinal perforation with an inguinal hernia in a patient who sustained blunt



abdominal trauma. Bruce<sup>2</sup> (1942) collected 93 cases, reported in the literature. In a review of the subject by H. T. John<sup>3</sup> in 1960 he noted 35 cases of traumatic intestinal rupture associated with inguinal hernia subsequently reported. "No such cases have been described in women" and "The herniae were all inguinal. . . ." The commonest site of injury has been the antimesenteric border of the ileum with concurrent contusion of the bowel wall.

More recently, Vyas et al.<sup>5</sup> reported the case of a 13 year old boy with a congenital right inguinal hernia who experienced blunt abdominal trauma and a perforation of the antimesenteric border of the ileum. In his review of the literature Vyas also states that "only the inguinal hernia is associated with perforation of the bowel", and that the hernia may not be "down" at the time of injury, although the injured loop is frequently found close to the inguinal ring. Our case of an eight year old girl with an *umbilical* hernia supports the observation that the bowel perforation occurs near the hernial ring, and enlarges the scope of bowel perforation with blunt abdominal trauma to also include that of an umbilical rather than inguinal hernia.

The mechanism of traumatic perforation of the bowel in the presence of a hernia has been variously explained.<sup>1,4</sup> Some support the theory that the sudden rise in endo-visceral pressure as a result of the blunt abdominal trauma causes a perforation of the unsupported bowel at the hernial ring (Fig. 1) whereas the equality of pressure around the bowel wall by an intact abdominal wall in a normal individual supports the bowel and prevents perforation. (Fig. 2) Others contend that it is the sudden rise in intra-abdominal pressure, and not the change of pressure within the bowel itself (endovisceral) which causes the viscus to perforate. A third theory proposes the possibility that the bowel is torn when it is fixed between the hernial ring and the ileocecal region or ligament of Treitz, and thus prevented from slipping away when a force is applied to the abdomen.

Although the purpose of this paper is not to present a new theory of mechanisms, it does add several new aspects to be considered in the association of a hernia with traumatic

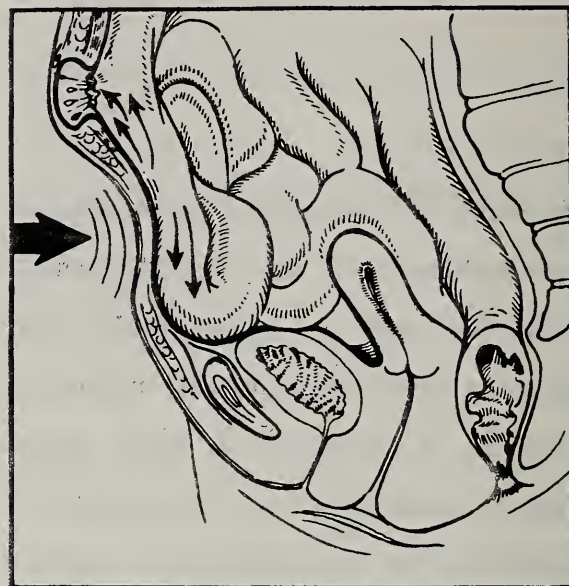


Fig. 1. Blunt abdominal trauma causes a perforation of unsupported bowel under pressure at the hernial ring.

perforation of the intestine. The fact that our case occurred in a female who was only eight years old, and had an umbilical hernia rather than an inguinal hernia, which showed no evi-

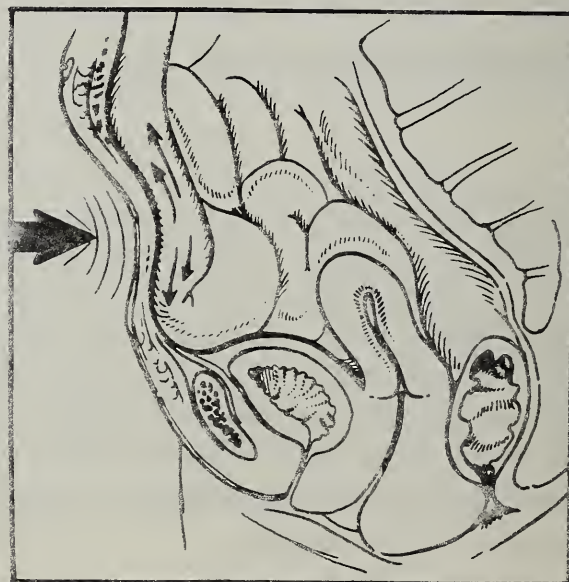


Fig. 2. Blunt abdominal trauma causes equally distributed endovisceral pressure in an intact abdominal wall.

dence of having been incarcerated, heightens the suspicion with which the surgeon must consider a person with a hernia who has experienced blunt abdominal trauma.



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## Cigaretts in Fatal Heart Attacks Among Women

Heavy cigaret smoking among women is blamed for a marked increase in sudden death from coronary heart disease among the feminine sex in a report in the May 14th issue of the *Journal of the American Medical Association*.

The report, from Brookdale Hospital Medical Center, Brooklyn, and Westchester County Medical Examiner's Office, Valhalla, N.Y., states that women are gaining steadily on men in frequency of sudden death from heart attack.

In the 1950s there were 12 sudden deaths in men from coronary heart disease (CHD) for each one in women. In the late 1960s, the ratio had dropped to four to one. This shift has been associated with an increase in heavy cigaret smoking among women.

The study also shows that heavy cigaret smoking may cut a woman's life span as much

as 19 years. The mean age for women dying suddenly of heart attack was 67 in the non-smoker, 55 in the light smoker and 48 in the heavy smoker.

"The finding in the study that 62 percent of the women dying suddenly from CHD were heavy cigaret smokers, as compared to only 28 per cent of those women who died suddenly from other causes appear highly significant."

Cigaret smoking is more lethal for women than for men in triggering sudden fatal heart attacks. Among men the ratio of smokers to nonsmokers in sudden death from coronary heart disease is three to one; among women the ratio jumps to nine to one.

The report is by David M. Spain, M.D., of the Brookdale Hospital Medical Center, and Henry Siegel, M.D., and Victoria A. Bardess, M.D., of the Westchester County Medical Examiner's Office.

# Letters to the Editor....

## Accelerated Medical Education

This is to call your attention to a major error of fact that appeared on pages 329 and 330 of the April, 1973 issue of the Virginia Medical Monthly in the article by Dr. William H. Young on "Accelerated Medical Education: Some Popular Attitudes."

The gross discrepancy between Professor Young's figures and the true statistics on physician activity is shown by the table below which compares his data with that of the American Medical Association survey of the "Distribution of Physicians in the U.S., 1971".

### PRIMARY ACTIVITIES OF U.S. PHYSICIAN MANPOWER, 1971

Primary Activity	Proportion of Physicians	
	Incorrect Data per W. H. Young	Correct Data per AMA Survey*
Active Practice (i.e.		
patient care)	50%	90%
Research	25%	3%
Administration	25%	4%
Medical Teaching	—	2%
Other	—	1%
	—	—
TOTAL	100%	100%

Whereas Dr. Young suggests that only half of today's doctors are in active practice, the true situation is in the neighborhood of 90 percent. Similarly, where he indicates that the remaining half of physicians are in research and administration, the actual proportion is only 7 percent.

In view of the significance of these data to public understanding of patient care and of medical education, it would be greatly appreciated if this letter or some other means of correcting these gross errors could be included

\* As of December 31, 1971 per pages 2 and 3 of "Distribution of Physicians in the U.S., 1971" by AMA Center for Health Services Research and Development.

in a future edition of your Journal. Other reasons for our strong interest in having this matter corrected include: (a) the fact that the meeting where the talk was presented was sponsored by our Association and (b) the errors in question were called publicly to the attention of Dr. Young during the discussion of his paper.

DAVIS G. JOHNSON, PH.D.  
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The article, "Accelerated Medical Education" by William H. Young in the April 1973 Virginia Medical Monthly makes a number of suggestions concerning changes in the pattern of medical education. The observations are primarily philosophic, and I do not care to disagree with another's personal philosophy.

Some assumptions, however, appear to be based on the statement—"graduating medical students go in one of three directions: about 50 percent go into active practice; about 25 percent go into research, be it university, governmental, pharmaceutical, or whatever; and about 25 percent go into administration, usually hospital, university, or government."

This ancient canard seems to die hard. There are, however, many sources of accurate data. To cite only one: Held, Philip J., "The Migration of 1955-1965 Graduates of American Medical Schools", University of California, 1973, p. 9. Of all living graduates for these years, 2.6 percent are not in medicine, 3.1 percent are in administration, and 5.9 percent in research. The remainder, 88.4 percent, are involved in direct patient care, as practitioners (77 percent), residents (8 percent), or teachers (3 percent). Of the total, excluding residents, less than 10 percent are associated with Universities, and less than 10 percent with the



Armed Forces, VA, or other agencies of the federal government.

WARREN H. PEARSE, M.D., *Dean*,  
Medical College of Virginia

### Reevaluation and Recertification

The warm, clear breezes are blowing recertification and reevaluation for physicians in America today. The ideas have much merit, with the rapidity of change in American medicine. Equally, it has become apparent that physicians are not carrying the total burden of medicine on their shoulders because many allied medical people are deeply involved in patient care.

Consequently, the proposal of reevaluation and recertification appropriately applies to all allied fields or else they too may become outdated. These fields of endeavor include nursing (all degrees), technicians (all categories), and hospital administration (all areas). Definitely, all allied, paramedical, and auxiliary medical personnel should be included in this necessary reevaluation and recertification.

The renewing head of the medical patient will need a body that is new and capable of keeping up, absorbing, and utilizing the good changes of need, in medicine today.

In a true sense, this is a direct challenge to all who engage directly or indirectly in patient care. If we are to give the patient the best we have, then all involved must have equal opportunity in this splendid idea of reevaluation and recertification.

The need is real and manifests itself in multitudinous examples in all fields and areas of medicine. To progress in one area of medicine and not in all phases will create inequity, particularly to the suffering patient.

L. P. HYDE, M.D.

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### Praises Virginia Medical Monthly

In looking at the cover of the May, 1973, issue of the Virginia Medical Monthly, Volume 100, I am reminded again of the fine Journal which it is.

It brought to my mind that I have taken this Journal since 1911 or 1916 (I do not remember which year—anyway it would probably be before your time) off and on.

What I want to emphasize is the superior quality of a medical journal which is wrapped up in this Virginia Medical Monthly.

I do hope if you ever come to Birmingham that you will drop in and see us and again congratulating you on your fine Journal which you are putting out, I am

Most cordially yours,

GILBERT F. DOUGLAS, M.D.

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*The Douglas Clinic*  
1923 Fourteenth Ave. South  
Birmingham, Ala. 23205

# Public Health ....

MACK I. SHANHOLTZ, M.D.  
*State Health Commissioner of Virginia*

## Regionalization of Health Services

The importance to Virginia of its rural population was exemplified by the action of the 1968 General Assembly that established the Rural Affairs Study Commission. The Commission was directed to study and report on the best ways and means to utilize existing rural resources and to develop facilities in rural areas to support industry and an expanded share of the State's growing population. An integral part of this study was directed toward the problem of providing better health care for rural Virginians.

As requested by the Rural Affairs Study Commission, the State Health Department worked with the medical profession and other interested groups to develop a rural health services plan using the State planning districts as the basic health regions. The office of Comprehensive Health Planning was designated to coordinate the report on behalf of the State Health Department. The medical and dental societies appointed ad hoc committees, both of which were very helpful in arriving at the final recommendations. A number of suggestions were made, including a major one that the nascent planning activities in Virginia be strengthened and extended. This recommendation is discussed briefly below.

The Rural Affairs Study Commission itself realized that every community in Virginia cannot support a hospital or a complete team of medical specialists equipped to diagnose and direct treatment for all illnesses. As the Commission pointed out, the problem requires:

"health resource management, including use of health manpower, organization of facilities, and financing of the health delivery system."

A pattern of regionalization of health care was proposed as probably the best and most

equitable way to distribute Virginia's health resources in such a manner that both rural and urban citizens would have access to the various levels of care. Different patients require different kinds of care at different points and times in the natural history of the diseases and disabilities from which they might suffer. The regionalization concept provides for a network of health facilities and services which differ in gradation of specialization. The more difficult the diagnosis or complex the disease, the further up the ladder of specialization the particular patient would need to "climb" to obtain the care required.

The Commission's brief description of the regionalization concept is so clear and concise that it may be quoted (slightly edited):

"The Commission desires to see the health care delivery system—the complex of private and public health and medical services and personnel within Virginia—developed cooperatively with local and areawide support, until an effective system of facilities and services is created. Such a system would be expected to have four levels of services. At the community level would be a health center, often called a Health Outreach Clinic or HOC, staffed by general practitioners or physicians engaged in family practice, together with qualified assistants. At the area level would be hospitals for less complicated cases. At the regional (intermediate) level would be hospitals located in the major municipalities, usually places with over 100,000 population. At the State level, (there might ultimately be about five regionalization systems, each associated with a medical school, or a large hospital such as would be found in a medical school complex). Through this four level system, the



Commission believes that rural areas of Virginia will achieve equality of access to a reasonable and acceptable quality of health care services. These services should be supplied by private effort, if possible, by private and public effort when necessary, or by

public effort alone when other means are not practical.”

Regionalization Pattern:

The regionalization pattern is depicted in the following chart:

REGIONALIZATION PATTERN				
FOR THE DELIVERY OF HEALTH SERVICES IN AN AREA				
1	2	3	4	5
OUTPOST OR OUTREACH	DOCTOR'S OFFICE OR POLYCLINIC	COMMUNITY HOSPITAL	INTERMEDIATE REFERRAL HOSPITAL	REGIONAL BASE HOSPITAL
	Primary Health Center	Secondary Health Center		
No Beds Physician's Assistant	No Beds Family Practitioner	50-200 Beds 2-5 Major Specialists	201-400 Beds 8-12 Specialties	401-700 + Beds Full Range of Specialties

NOTE: As the degree of complexity increases from 1 to 5, the service characteristics of the preceding area are retained for the benefit of residents living near the more complex facilities.

“Tennis Toe” Is New Health Problem

Weekend athletes now have another medical problem to worry about—tennis toe.

Tennis elbow has long been known to be a vocational hazard of tennis players. It’s similar to pitcher’s elbow in baseball.

And now comes tennis toe, mentioned in a report in the June issue of *Archives of Dermatology*, a publication of the American Medical Association.

Richard C. Gibbs, M.D., of New York, reports:

“For the past few years I have been im-

pressed by the number of tennis players who complain of pain in one or more of their toes. The pain is associated with the appearance of hemorrhage beneath their toenails. The toe affected is that which extends furthest.”

Sometimes this is the big toe, sometimes the second toe, sometimes both extend about the same.

“The explanation I have always held for tennis toe is that in tennis one is frequently stopping abruptly and the forward motion of the body propels the toes into the box toe and tip of the sneakers.”

# Medicare—Part B . . . .

## Reasonable Charge

Currently Part B of Medicare is paying claims based on 1971 charging patterns as modified by the President's Phase II regulations. Later this year we expect to be instructed to consider physicians' bills for payment based on 1972 charging patterns modified by the President's Phase III Program.

Regulations instruct the carrier to consider the reasonable charge for payment and we are provided with two criteria to use in determining the "reasonable charge". The two criteria set out in the Law (P. L. 89-97) are: (a) The customary charge generally made by the physician or other person furnishing the services, and (b) The prevailing charge in the locality for similar services.

To compute the individual physician's "customary charge" each service is coded and the code, the charge, together with the physician's identity is stored in a computer memory bank. When the new profile is to be constructed, all charge data is recalled and arrayed and the median charge for each procedure calculated. This becomes the physician's customary charge.

Example using routine office visit:

Physician "A" had

200 routine office visits charged at	\$10.00
250 routine office visits charged at	8.00
199 routine office visits charged at	7.00
<hr/>	
649 Total	

The "median" is the 325th visit and the physician's customary charge is \$8.00 for a routine office visit.

The "prevailing charges" are those which fall within the range of charges that are most frequently and widely used in a locality for a particular procedure or service. In establishing the prevailing charge for a specific procedure, the customary charges within broad specialty groupings are compared. Surgical specialists

CURTIS J. KELLY, JD.

are compared with surgical specialists; non-surgical specialist's charges are compared, etc. Charge comparisons within these groupings are on a geographic basis and Virginia is divided into three areas or localities for this purpose.

To establish the prevailing charge for a given procedure, the customary charge is listed and opposite each customary charge is indicated the total number of services rendered by physicians within the specialty grouping (in the same geographic area) having the same customary charge.

Example:

Physicians having same customary charge of (for a specific service)	Number of services rendered by physicians having the same customary charge
\$10.00	500
8.00	1800
5.00	1290
4.00	1000
3.00	200
<hr/>	
Total	4790 of the same service

The 75th percentile of the total times the service was rendered is defined as the prevailing charge. ( $75 \times 4790 = 3592$ nd service) Counting the number of services from the lowest dollar amount charged to the 3592nd service, the prevailing is established as \$8.00.

We are instructed to compare the physician's customary charge with the prevailing charge and if a difference exists to consider the lesser amount for payment.

Example:

Dr. Charges	His Customary	Prevailing	Medicare considers for payment
\$ 10.00	\$ 8.00	\$ 12.00	\$ 8.00
4.00	4.00	6.00	4.00
5.00	7.00	9.00	5.00
\$750.00	\$750.00	\$500.00	\$500.00



The President's Phase II program established calendar year 1970 customary and prevailing charges as the base date. 1971 customary and prevailing data was compared with 1970 data and where an increase was noted, we were instructed to consider 40% of the increase.

Example:

1970 Customary Charge	1971 Customary Charge	Phase II adjusted customary charge
\$8.00	\$10.00	40% of \$2.00 = 80¢ or \$8.80

Phase III implementation continues to designate 1970 customary and prevailing charges as

the base data. We expect to be instructed to recognize 55% of the difference in 1970 and 1972 customary and prevailing charges.

Example:

1970 Customary Charge	1972 Customary Charge	Phase III adjusted customary charge
\$8.00	\$11.00	55% of \$3.00 = \$1.65 or \$9.65

In both Phase II and Phase III the adjusted customary charge would be compared to the adjusted prevailing charge and if a difference is found to exist, Medicare is instructed to consider the lesser amount for payment.

### Better Health Care of Poor

New and modern approaches to improved delivery of health care to the poor, to operation of "free" health clinics, and to extending care through greater use of allied health workers are set down in three new publications of the American Medical Association.

"Progress Report of the AMA Committee on Health Care of the Poor" points out that health problems of the poor must be approached in terms of the other contributing factors—poor housing, malnutrition, unemployment and insufficient education. The cultural variations among minority segments must be understood to reach these people with health care programs.

Another pamphlet, "Statement on Free Clinics," urges organized medicine at national, state and local levels to continue to provide assistance and work to improve the quality of care in such clinics. Free clinics are grouped into three general types: "hippie," "neighborhood," and "youth," the publication says. Sometimes the clinic is a combination of these forms.

The clinics are free in the sense that all patients are treated, regardless of ability to pay. Many of the clinics ask for voluntary donations. Some are well staffed and equipped to provide good service, while others are inadequate.

A third publication, "Statement on Health Outreach," deals with use of health care people other than physicians. The health outreach worker is known by many titles, such as health aide, health advocate, community aide, community representative, health agent, family health worker, health street worker and ombudsman. His function is to help bridge the cultural gap between patients, professional staff and the community; to improve communications between these groups; and to assist in effective delivery of health care to patients and their families.

The pamphlets are available without charge from the Department of Community Health, American Medical Association, 535 N. Dearborn St., Chicago, Ill. 60611.





## Ecology and Human Health

**T**HE TOPIC OF ECOLOGY and human health would seem at first glance to be non-controversial. After all, in the present day thinking, it would appear obvious that whatever is good for ecology is good for human health. On second thought, two basic questions are raised:

1. Is health concern the same as ecological concern.
2. Does ecological pollution always cause a health hazard.

Further study of these basic questions causes us to conclude that far from being complimentary, ecological interests and health interests may be antagonistic. As we evaluate health effects of many substances, it becomes most difficult to appraise the validity of interpolations and inferences drawn from animal experimentation, especially in applying these results to human carcinogenicity and mutagenicity. Another great difficulty we face today is in approaching the problems of ecological balance and pollution in a rational and dispassionate manner. We have become embroiled in advocacy and partisanship and have abdicated our scientific expertise to the politicians.

What then are some of our great problems affecting both health and ecology? DDT is probably a prime example, where after thorough hearings the hearing examiners findings were rejected by the EPA, and DDT is now in the process of being banned in the United States. At the same time it was admitted that the "acceptable substitutes", such as parathion and malathion, are extremely dangerous in the hands of the unskilled applicator, and that fatal accidents might happen even if properly applied. Thus the substitute is known to be hazardous to human health, while the initial "culprit"—DDT—has not been shown to be dangerous to humans. We must also consider the effect of the removal of pesticides and fertilizers on food production and public health. As one of my colleagues stated at a recent meeting on the use of pesticides, "we may soon return to the flyswatter and cheesecloth as the only acceptable means of pest and disease control." Another health effect of pollution control which is just now beginning to surface is the "stalling" of automobiles due to the air pollution devices now mandatory on new automobiles. While nobody can challenge the need for some emission controls, it seems that more and more accidents are caused by stalling of automobiles in traffic, thus raising a question of a completely new "health effect" of pollution control.

We are all familiar with the general concern, sometimes bordering on hysteria, with certain food additives. There appears to be very little doubt that DES (Diethylstilbesterol), when properly applied, improves the meat production in beef. It is very doubtful that the evidence linking DES to cervical and vaginal cancer in young women is reasonable or conclusive at the present time. However even if that evidence became definite, there is no question that DES in trace doses, such as one part per billion in beef liver,

is not an effective carcinogen, and this has been admitted by the FDA. Yet the spectre of "cancer" and the power of the Delaney clause are strong enough to cause federal action which will substantially affect the production and price of beef. While "saving" some from a faintly remote chance of cancer of the vagina or cervix, if the individual ingested five thousand pounds of beef liver, we deprive a large number of poorer citizens of beef, because of decreased production and increased prices. Other substances which may be banned on rather flimsy grounds despite their value to humans include cyclamates, certain essential fungicides which produce ethyl thiourea at some stage of their breakdown process and many antiseptic agents.

In approaching some of the health questions we always appear to base our thinking on the "status quo". This ignores certain facts, which include:

1. Dynamic changes in the natural environment
2. Adaptability of strains and species
3. Darwinian concepts of survival.

Historically, the basic philosophical and ethical approaches in medicine have been based on saving and preserving life at all costs. Some of our present day thinkers have introduced the concepts of "overpopulation" and "overcrowding", thus creating a paradox and conflict: population control vs. improved medical care and public health. What then is the role of the health specialist in environmental quality improvement, keeping in mind the various pressures from the frequently conflicting public and emotional sectors?

Certain facts can be stated:

1. The United States is not now overpopulated.
2. Pollution due to DDT has not been a human health danger.
3. Nitrates, nitrites, cadmium in the usual concentrations encountered in the environment are not at present knowledge dangerous to humans.
4. Industrial pollution is a health hazard.
5. Solid waste disposal, water pollution and littering are major problems.
6. Pesticide residuals and disposal of pesticide containers are of major health import.

Assuming some of the above statements, what should then be the deciding factor, or factors, in dealing with pollutants?

1. Human Health
2. Animal Health
3. Esthetics
4. Recreational
5. Activist pressure
6. Political expediency.

Some answers are quite simple, while others are complicated.

The simple solutions include:

1. Avoid overuse of any substance, i.e., seek maximal response with minimal dosage, avoid "overkill". This principle should be especially applied to additives, pesticides and fertilizers.



2. Proper industrial pollution safety standards, based on reasonable risk-benefit factors, should apply to air, water and surface areas.
3. Generation of clean power. This would involve the quieting of the hysterical response to the production of atomic power as well as improvement of hydro-electric efficiency, in co-ordination with flood control, water supply, sewage disposal and power generation.

The more complicated problems and some of their partial solutions are among others:

1. Solid waste disposal: Compacting, burning at very high temperatures, sanitary land-fills, dumping in ocean waters, recycling have been used to a moderate degree of success. Solid waste disposal is probably our "number one" problem.
2. Sewage disposal can be accomplished up to and including tertiary treatment. The only hangup is expense.
3. Clean water production. This is partially dependent on some of the other solutions already enumerated above. Other modalities include desalinization, impoundment of water and recycling.
4. Clean air, here we must set flexible standards depending on climatic and environmental conditions.
5. Carcinogenesis and mutagenesis—our solutions here must be based on human health experience, not on experimental animal data. Population studies, including comparative groups and controls must be used to arrive at an acceptable risk benefit standard.

The above discussion has presented a brief outline of the problems affecting the concerned physician, health specialist and environmental scientist. It is hoped to stimulate a more rational approach to some very emotional topics.

W. L. WEYL, M.D.

## **"The Waltons" and Medicine**

**T**HE WALTONS" appears on television in this area every Thursday night and is viewed by a constantly increasing audience. The program is remarkable in a number of ways. At the beginning, critics were confident that the essential decency of the weekly plots would doom it for an American audience, yet like the humble bumble bee whose wings, aerodynamically speaking, are too short to permit it to become airborne, "The Waltons" continue to rise each month in the TV ratings and is now termed "the sensation of the year". The ultimate in TV acclaim was received this May when six Emmys were given "The Waltons" at the 25th Television Academy Awards. A recent mention in the Richmond News Leader stated "the program . . . (is) a total relief from the cynical exploitation of baser human actions that too often is passed off as 'art' in today's media of communications."

By now most of the readers of the Virginia Medical Monthly are aware that the era depicted in "The Waltons" was that of the Great Depression and the setting was Nelson County near Schuyler. Actually the scenes are

filmed in California with the coastal range as a back-drop which proves that the western mountains are almost, but not quite, as beautiful as our more ancient Blue Ridge. The author, Earl Hamner, Jr., knows his Virginia countryside well for he was born and raised in the house that is depicted on the screen, albeit the original is not as large as the California version of the Walton homeplace. His mother continues to live there. The Schuyler post office and the general store come through clearly each week on TV.

The elderly Baldwin sisters who live nearby and do a little distilling in the rear of the family mansion is the only concession made to Hollywood by author Hamner, and this lapse may be easily excused. In fact, this is the only inaccuracy the writer has noted. This is not to mean there were no stills in Nelson County a half-century ago—but the warm distillate that found its way into Charlottesville did not originate in Jeffersonian edifices with oil portraits over the mantels—quite the contrary in fact! But the sight and sounds of the Chesapeake and Ohio trains that stop briefly at “Rockfish” depot to take on passengers and, at times, corn whiskey under the watchful eye of station agent “Homer Ferguson” have a familiar and nostalgic ring.

All of this sets “The Waltons” apart from the usual Hollywood production. But virtually unheard of in present day TV is the role of the physician as presented in the program. A family as large and lively as the Waltons requires frequent medical attention and their neighborhood physicians never fail them. When “John Boy”, the juvenile star, fell out of a tree and broke his arm Dr. Shackelford reduced the fracture readily. One of the younger Waltons became ill and his appendix was removed with dispatch in Scottsville. The surgical fee in those depressed days was \$28.00.

The Easter story of Olivia Walton’s struggle with polio found their family physician, Dr. Vance, a pillar of strength, but when “John Boy” had misgivings and traveled the fifteen miles to the University of Virginia to learn of any new developments about the treatment of polio he found Dr. Miller, the Dean of Medicine, helpful and a victim of polio himself. A few days later the Dean made a house call to see how the patient was progressing and gave an impartial account of the new Sister Kenny treatment. The medical data is well documented and unlike the picture of the physician in current movies or TV, he is neither over-played nor made to appear indifferent or avaricious.

There is a liberal helping of corn in “The Waltons” as there doubtless must be in all TV programs, but this is the kind of corn the medical profession can use in large quantities. We have had more than our share of “documentaries” on both CBS and NBC in recent years. We are all beholden to Mr. Hamner, for he has made it possible for the nation to learn what we already knew—Virginia is beautiful, Virginians are essentially good and our physicians are tops!

H. J. W.



## **Calendar of Events**

WALTER L. THOMAS SYMPOSIUM ON GYNCOLOGICAL MALIGNANCY AND SURGERY—  
Duke University Medical Center—Durham, North Carolina—September 21-  
22, 1973.

NATIONAL CONFERENCE ON PHYSICIANS AND SCHOOLS—Sponsored by American Med-  
ical Association—LaSalle Hotel—Chicago—October 4-6, 1973.

ANNUAL CARDIOVASCULAR SYMPOSIUM—Sponsored by Council on Clinical Cardiol-  
ogy—American Heart Association—Colony Inn—Williamsburg—October 11-  
13, 1973.

THE MEDICAL SOCIETY OF VIRGINIA—Annual Meeting—Holiday Inn/Scope—Nor-  
folk—October 18-21, 1973.

SOUTHERN MEDICAL ASSOCIATION—Annual Meeting—San Antonio, Texas—Novem-  
ber 12-15, 1973.

AMERICAN MEDICAL ASSOCIATION—Clinical Session—Anaheim, California—Decem-  
ber 1-5, 1973.

CONFERENCE ON TEAMWORK FOR THE HANDICAPPED CHILD—Sponsored by the Vir-  
ginia Council on Health and Medical Care—Hilton Inn—Virginia Beach—  
December 9-11, 1973.

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The Medical Society of Virginia maintains a registry of medical meetings and  
programs of interest to Virginia physicians. You can help by keeping us advised  
of any meetings scheduled in your area. This will not only help others avoid  
conflicts but also provide helpful information on opportunities for continuing  
education.

## **New Members.**

The following members were received into  
The Medical Society of Virginia during the  
month of April:

David M. Abbot, M.D., Springfield

Theodore Gerard Aldhizer, M.D.,  
Richmond

Charles Edward Buckley, M.D., Vienna

Lilia G. Butler, M.D., Arlington

William Christian Calloway, M.D.,  
Richmond

James Howard Carraway, M.D., Norfolk

Richard D. Cilley, M.D., Williamsburg

Lawrence Cohen, M.D., Leesburg

William Vaughan Davis, M.D., Roanoke

Guido Artes Edillon, M.D., Charlottesville

Wallace H. Holthaus, M.D., Harrisonburg

Michael Jaffe, M.D., Richmond

Burton A. Johnson, M.D., Silver Spring,  
Maryland  
Maxwell Sherwood Maillis, M.D.,  
Springfield  
Bayani Lipana Manalo, M.D., Falls Church  
John L. Marshall, M.D., Hampton  
J. Munzner, M.D., Fishersville  
Shiv Navani, M.D., Big Stone Gap  
James Laughton Phillips, M.D., Hampton  
David Boyd Propert, M.D., Richmond  
Harry Willis Royal, M.D., Richmond  
Phillip R. Thomason, M.D., Springfield  
Charles Edward Umstott, M.D.,  
Newport News  
Terkild Vinding, M.D., Radford  
Duncan Saron Wallace, M.D.,  
Virginia Beach  
Rudolph Bernard Wenleder, M.D.,  
Richmond  
Alex P. Yadao, M.D., Falls Church  
Chu Hon Yi, M.D., Colonial Heights

### **Virginia Academy of Family Physicians.**

At the annual meeting of the Academy, held in Charlottesville in May, Dr. T. Winston Gouldin, Norfolk, was installed as president. Other officers are: Dr. William B. Waddell, Galax, president-elect; Dr. Robert S. Smith, Dinwiddie, vice-president; Dr. Darrell K. Gilliam, Richmond, secretary; and Dr. Robert L. Cassidy, Culpeper, speaker of the congress of delegates.

### **Dr. Walter Lawrence, Jr.,**

Has been named acting chairman of the department of surgery of the Medical College of Virginia, following the death of Dr. David M. Hume. He has been chairman of the division of surgical oncology and has been at the College since 1966.

### **Dr. William M. Anderson,**

Richmond, has been appointed medical director of the Richmond Memorial Hospital.

He joined Richmond Memorial Hospital in 1968 as director of the out-patient clinic and in 1971 was named director of professional services. He held this position until January when he was named acting medical director.

### **Dr. W. Taliaferro Thompson, Jr.,**

Has retired as chairman of the Department of Medicine of the Medical College of Virginia, a position he has held since 1959. A dinner party was held in his honor on May 31 and this was followed the next day by a series of scientific papers presented by physicians who were former residents under Dr. Thompson.

### **Dr. Wheeldon Honored.**

The American Rhododendron Society has honored Dr. Thomas F. Wheeldon, Richmond, with its highest award, the Gold Medal. He was cited for his service to the Society, for his policy of opening his own eight-acre garden to the public and for his extensive work in propagating azaleas and rhododendron.

### **The American Board of Family Practice**

Announces that it will give its next two-day written certification examination on October 20-21, 1973, in various centers throughout the United States. Information regarding the examination may be obtained from Nicholas J. Pisacano, M.D., Secretary, American Board of Family Practice, Inc., University of Kentucky Medical Center, Annex #2, Room 229, Lexington, Kentucky 40506.

### **B-Scan Ultrasound Conference.**

This conference, to be held at Johns Hopkins Hospital, Baltimore, on September 7, is designed for radiologists, obstetricians and nuclear medicine specialists who have recently become interested in diagnostic ultrasound. It will be of particular value to doctors and technologists who are contemplating ultrasound scanning or have recently started B-scan ultrasound. Since B-scan ultrasound machines may, in addition, be used for echocardiography and echoencephalography, these topics will be



briefly considered. Faculty will include G. Leopold, W. Cochrane and S. Uematso.

Details may be obtained from R. C. Sanders, M.D., Department of Radiology, Johns Hopkins Hospital, Baltimore, Maryland 21205.

### **Rehabilitation Center**

For Psycho-Geriatric patients with dynamic program needs M.D. with Virginia license. Suit older man wishing to slow down. May work until 70. For further details contact Director, Catawba Hospital, Catawba, Virginia 24071. (Adv.)

### **Emergency Room Physician.**

Accredited 280 bed progressive general hospital in beautiful Huntington, West Virginia.

Excellent income and working conditions. Send resume to Assistant Administrator, Cabell Huntington Hospital, 1340 Sixteenth Street, Huntington, West Virginia 25701. (Adv.)

### **Physician Needed**

To provide examinations and treatment in Spinal Cord Injury Service of hospital. U.S. licensure required. 875-bed GM&S Hospital affiliated with medical school. Excellent retirement and leave benefits. Nondiscrimination in employment. Contact Chief, Spinal Cord Injury Service, VA Hospital, Richmond, Virginia 23249. Telephone (703) 233-9631, Ext. 272. Equal Opportunity Employer. (Adv.)

# Obituary . . . .

## **Dr. David Milford Hume,**

Richmond, a pioneer in kidney transplantation, was killed May 19 when the plane he was piloting crashed into a mountain shortly after his takeoff from Los Angeles. He was fifty-five years of age and received his medical degree from the University of Chicago in 1943. Dr. Hume performed the world's first kidney transplant at the Harvard Medical School in 1952, where he was an assistant professor of surgery and director of the surgical research laboratories. He came to the Medical College of Virginia in 1956 where he was the Stuart McGuire professor of surgery and chairman of the department of surgery. Dr. Hume was also well known as a vascular surgeon and was interested in the transplantation of other vital organs, including the liver and the intestines. Besides his numerous research and patient care activities, Dr. Hume was also intensely interested in medical education, especially surgical education and training. He was a consultant of the National Institutes of Health in many key capacities, including surgical research and kidney transplantation and served on the Atomic Energy Commission's Advisory Board.

He was the recipient of many awards, including the Francis Amory prize given by the American Academy of Arts and Sciences; the Outstanding Harvard Alumnus of Virginia; the Valentine Award of the New York Academy of Medicine; The Hadassah Humanitarian Award, Richmond Chapter; the Distinguished Service Medal of the University of Chicago, and the Distinguished Achievement Award by Modern Medicine. Dr. Hume was also co-editor of a popular textbook "Principles of Surgery".

Dr. Hume was a member of the American Association for the Advancement of Science, the Society of University Surgeons, the New York Academy of Science and the American Society for Clinical Investigation. He had

been a member of The Medical Society of Virginia since 1956.

Dr. Hume is survived by his wife, three daughters and a son.

## **Dr. Adam Duncan Ferguson White,**

Lynchburg, died May 31, after a long illness. He was seventy-five years of age and received his medical degree from the University of Aberdeen in Scotland in 1925. Dr. White had practiced obstetrics and gynecology in Lynchburg for the past 45 years. He served as head physician at the Florence Crittenton Home for 20 years. Dr. White served in the Army Medical Corps during World War I and was a pilot for the Civil Air Patrol during World War II. He was a past president of the Lynchburg Rotary Club. He was also a past president of the Lynchburg Academy of Medicine and had been a member of The Medical Society of Virginia for forty-two years.

His wife, a niece and three nephews survive.

## **Dr. Michael Ignatius Hanna, Sr.,**

Covington, died April 3, 1973, at the age of fifty-nine. He was born in Clifton Forge. He was a member of Sacred Heart Catholic Church.

Dr. Hanna received his pre-medical training at the College of William & Mary, and was graduated from Georgetown University School of Medicine, Washington, D.C., in 1940. He interned at Gallinger Municipal Hospital in Washington, D.C.

A veteran of World War II, he entered Army Medical Corps in July 1941 and served for three years in the South Pacific. He was awarded The Purple Heart for wounds suffered in New Guinea.

Dr. Hanna was awarded The Bronze Star during The Luzon Campaign in the Philippines. His unit liberated prisoners of the Japanese in Manila and Dr. Hanna cherished the gift of a cane, given to him in gratitude by a Filipino physician, who had carried it on the Bataan death march.

Following his discharge, he served a medical residency at St. Francis Hospital, Charleston,



West Virginia. He began the practice of medicine in Covington in 1947 and served as Medical Examiner until his death. Dr. Hanna was a member of Phi Chi Medical Fraternity, The Alleghany-Bath Medical Society and the Medical Staff of Alleghany Memorial Hospital. He had been a member of The Medical Society of Virginia for twenty-six years.

Affectionately known to his family and friends as "Mike", he will be missed by his colleagues, patients, and friends, as well as his family, which includes his wife, two daughters and three sons, two who are studying medicine. He is also survived by his mother, two sisters and a brother, Dr. Peter Hanna, Alexandria.

THEREFORE, BE IT RESOLVED, that this resolution be added to the minutes of the Alleghany-Bath Medical Society.

BE IT ALSO RESOLVED, that a copy of this resolution be sent to his family and to the Editor of the Virginia Medical Monthly for publication.

WILLIAM J. ELLIS, M.D.

### **Dr. John Wesley Emerick, Jr.,**

Richmond, died May 11, at the age of fifty-two. He received his medical education at the University of Virginia, graduating in 1957. Before coming to Richmond, Dr. Emerick practiced in Berryville and Dumfries. He was a veteran of World War II. Dr. Emerick had been a member of The Medical Society of Virginia for fourteen years.

His wife, two sons, three daughters, a stepdaughter and a stepson survive.

### **Dr. William R. Garcia**

Covington, died April 20, following an extended illness. He was sixty-four years of age and graduated from the Universidad Nacional de Guatemala in 1940. Dr. Garcia came to the United States in 1947 on a fellowship with the United States Public Health Service. He came to Covington in 1956. Dr. Garcia joined The Medical Society of Virginia in 1960.

His wife and two sons survive him.

### **Dr. Ralph Morgan Curt,**

Falls Church, died May 28 following a heart attack. He was forty-nine years of age and

a graduate of the Department of Medicine, University of Virginia, in 1954. Dr. Curt had practiced in Falls Church for the past eighteen years. He was on the staffs of Arlington, Northern Virginia Doctors and Fairfax Hospitals. Dr. Curt served in the Army Corps of Engineers during World War II. He was a member of The Medical Society of Virginia, having joined in 1964.

His wife, a son and a daughter survive him.

### **Dr. Thomson.**

Dr. James Levi Thomson died suddenly on March 3, 1973, at the age of sixty-three years. Dr. Thomson was born in Clark County, Kentucky. His family later moved to Jenkins, Kentucky and later still to Lexington. He received his A.B. degree from the University of Kentucky in 1930 and his M.D. degree from the University of Cincinnati Medical College in 1934 and a Medical Science degree in Pathology from the same college in 1936. He served his internship at the Good Samaritan Hospital in Lexington, Kentucky and a residency in Pathology at the University of Cincinnati General Hospital. He interned in surgery at Louisville City Hospital, 1936 to 1937. His neurological surgery resident training was received at the Medical College of Virginia Hospital in Richmond, 1937-1942, under Dr. Claude Coleman, whom he occasionally accompanied on trips to Norfolk Hospitals. In this way, he came to know Dr. Frank Redwood, a Norfolk Medical Neurologist and Psychiatrist, who urged him to come to Norfolk to practice. This was deferred by service in the Army in World War II in North Africa and Italy as Neurosurgeon with the 45th General Hospital which was sponsored by the Medical College of Virginia.

In 1945, Dr. Thomson came to Norfolk to begin his practice of Neurosurgery. He was associated with Dr. Redwood until the latter's death in 1949. From the very beginning he carried a tremendous work load and for many years his practice included not only Norfolk and Portsmouth but the more distant communities of Newport News, Suffolk, Franklin, Elizabeth City, the Eastern Shore and others. Up until the time of his death, he worked long hours and took little time away from his practice.

Dr. Thomson's work was characterized by its excellence. He was a master craftsman in all he did, whether it was a myelogram, disc removal, or more complicated surgery. Much of his spare

time was devoted to the study of advances in his specialty. His judgment of patients also was excellent and his opinion was frequently sought in cases where it was difficult to distinguish between complaints having a physical or functional basis. This was especially valuable in medical-legal cases and his opinion was held in high regard by the legal profession.

Dr. Thomson took a prominent part in the activities of his profession. He was a member of many societies. These included the Norfolk County Medical Society, The Medical Society of Virginia, the American Medical Association, the Southern Medical Association, the Seaboard Medical Society, the American Association of Neurological Surgeons, founded as the Harvey Cushing Society, the Southern Neurosurgical Society, the American Association of Railway Surgeons and the Excelsior Surgical Society of the Mediterranean Surgeons who served in World War II. He helped found and was the first president of Neurosurgical Society of the Virginias. He was a fellow of the American College of Surgeons and a diplomate of the American Board of Neurological Surgery.

He was on the staff of many hospitals: Norfolk General, where he was president of the Medical Staff in 1963-1964, DePaul, Leigh Memorial, and Childrens Hospital in Norfolk, Portsmouth General and Maryview in Portsmouth, Louise Obici Memorial in Nansemond and General Hospital of Virginia Beach. He also served as consultant to Portsmouth Naval Hospital and Keough Veterans Hospital.

In 1969, he received a citation by the President's Committee for the physically handicapped for his work on the Medical Advisory Board of the State Vocational Rehabilitation Commission.

Dr. Thomson had a number of interests outside of his profession when time allowed. Foremost were his family and his home where he loved to relax. Another was his church where he served on the Board for many years and regularly attended service and Bible class. He was a great

nature lover and enjoyed fishing and hunting mainly for the opportunity to be outdoors. He subscribed to magazines such as the "Farm Journal" and "The Progressive Farmer" and made an annual trip to the Virginia State Fair.

Dr. Thomson was a man of unusual character. He seemed to carry his heavy responsibilities lightly and was always cheerful. He always appeared calm and at ease no matter what pressures weighed upon him. He liked to joke with patients and with young people in such a way that he was sometimes taken seriously for a moment. He was always very modest about his own accomplishments and although he had a natural dignity, he never showed any desire for personal recognition. He practiced his religion and seemed to realize that God is the doer. He was kind and compassionate. He was always willing to see another patient who needed help even at the end of a long day. He was tolerant of the shortcomings of others and was seldom heard to say anything critical. Instead he looked for the good in others.

Dr. Thomson is survived by his widow, a daughter, and a son, and also by two sisters and three brothers.

WHEREAS, this Medical Society has lost a distinguished member and a friend, and,

WHEREAS, this community has lost an outstanding neurosurgeon and physician,

BE IT RESOLVED, THEREFORE, that the Norfolk County Medical Society enter in its minutes these remembrances of Dr. Thomson and convey sympathy to his family, and,

BE IT RESOLVED, that a copy of these resolutions be sent to Dr. Thomson's family, and

BE IT FURTHER RESOLVED, that copies of these resolutions be sent to The Medical Society of Virginia for publication in the Virginia Medical Monthly.

R. BRYAN GRINNAN, JR., M.D.

JOSEPH T. McFADDEN, M.D.

GEORGE G. HOLLINS, M.D., *Chairman*



# The Amateur Dial.

"NIL DESPERANDUM."

Vol. I.

Richmond, Va., July, 1879.

No. 3.

## Sorrows of a Cork Leg.

By Henry De Witte.

I AM a cork leg, with a back-bone of finely tempered steel, and muscles of the same material. I am as fine a piece of workmanship as ever existed, and for beauty can give a *bona fide* leg of bone and flesh ninety-nine out of a hundred and beat it. But, alacka-day! I am an unfortunate being, I belong to a man who is given to indulging in the beer when it foams and sheds topaz colored rays. And when he blows the foam too often off the glass, a more devil-may-care fellow never existed on this green earth or any other.

When he is in a state of joyfulness, my cup of misery is full to overflowing, for he then uses me as if I was no better than a vulgar wooden peg-leg. He slashes me around in every conceivable and inconceivable manner. Thinks no more of knocking me up against a lamp post than if I was iron. If he comes across a good savage dog he pokes me at it, and when it takes hold of me with its teeth, he laughs uproariously. It may be a good joke to him, but may I be hanged if it is to me. Why, confound it, gentlemen, I am wounds and bruises from the knee down. And oh, how they do ache sometimes. The tips of three of my toes are off. The result of my owner allowing a wagon to go over them one night after drinking near half a keg. They haven't been repaired, or the least attention paid to them either, except being damned on the morning following for coming off so easy, and if mortification doesn't set in, I can thank my lucky star.

Another pleasant trick of this fellow, for whom I work so hard to support and keep up in the world, is to duck me after a convivial meeting with his bottle-friends. Yes, gentlemen, duck me, actually duck me; and in the first puddle he comes across, no matter how dirty it may be. Sometimes, however, by mistake, he puts the wrong foot in, and then how he does swear, and how I do laugh to my myself. But he soon forgets his mishap and continues on his way, and my trials also continue, with an average of two to each block traversed.

Now, this business must cease; yes, gentlemen, I am quite determined that it must stop; or, I swear solemnly that there will be trouble. I do not like to be jammed around in the manner I am now, at times. It is wearing, very wearing, and my constitution, naturally delicate, won't stand it. Besides, the vexation of mind, at being so treated is working me evil. I wouldn't mind if my ungrateful dependent would content himself with slapping me at his wife's pet cat, but when he knocks me around indiscriminately, I protest, gentlemen, I protest; and if my protestations against his using me so is not sufficient to bring about an understanding between us, I will give way some of these days, and let him whom I have supported so long, down. I hope I may die, if I don't.

## Observations that Should be Practiced.

By Amasa Sylvester.

True politeness has its foundation in benevolence or good-will to mankind.

Happiness consists not in some extraordinary instance of good fortune nor virtue in some illustrious exertion of it.

To gain the good-will of others is soothing to the heart; and they must be proud or insensible in a very uncommon degree who are not desirous of it.

A superior degree of delicacy may often be the cause of much pain to those who possess it.

True benevolence inspires a sincere desire to promote the happiness of others.

True delicacy feels the pain it receives, but it feels much more strongly the pain it gives.

To wound the heart is to mislead the understanding.

A person might as well refuse to speak the language of a country as to disregard its customs in matters of indifference.

If he who is sincere cannot appear amiable, his heart is wrong.

Sincerity is indeed the ground work of all that is good and valuable; however beautiful in appearance the structure may be, if it stand not on this foundation it cannot last.

He who is polite only by rule will probably, on some occasion or other be thrown off his guard.

It is unjust as well as ill-natured to take advantage of the weakness of others.

Indeed, flattery is not, in general, addressed to real and acknowledged merit.

Polite behavior is what renders merit amiable and agreeable; and on the contrary, the want of it destroys the esteem that is due to finest qualities.

Many pass for polite who have but a superficial tincture of this virtue, concealing themselves under the dazzling plumage of a borrowed exterior.

Affectation is the wisdom of fools, and the folly of many a comparatively wise man.

It cannot be denied, that politeness is the most charming thing for civil society.

## Advice to Old Men by a Boy.

I cannot pick up a newspaper without "Advice to boys" stares me in the face. Old men write it, I s'pose. Nobody else is capable of giving any advice to boys; of course not! They know all about us, they do, 'cause they've been there. Advice is a good thing to have, no doubt, and no family should be without it, but a fellow don't want to be crammed with it all the time to the exclusion of all other diet.

Now, old men need advice occasionally, but in looking through the newspapers I don't see as they get it. So I thought I would write a little Advice to Old Men myself, if I am not presuming too much (as Annt Chloe says) and I presume I am.

In the first place you old gentlemen ought to get over telling how much smarter boys were when you were young, than they are now. You believe it yourselves, of course, 'cause you've told it so many times, but we boys can't see it. We have a notion that boys are boys pretty much (except some that are girls) the world over, and one generation of them can't lay over another generation to any alarming extent.

Only let you tell it and you could out-jump, out-run out-wrestle, and out anything else the rising generation of to-day when you was a boy. Grandfather, who has got the gout, and half a dozen different kinds of rheumatism, is always saying that. I heard him singing the other day, "I would I were a boy again." I would he were. If I couldn't beat him running, and drop him on his back, side-holt, I don't want a cent.

I wouldn't go so far as to say, "parents obey your children," but I would suggest to fathers that they give us boys a hearing occasionally, on matters in which we are the ones most interested. Don't make us go and slide down the hill when we want to skate, and don't try to make preachers of us when we much prefer to run a saw mill. This is figurative, but I guess you know what I mean.

After giving us boys sage advice about our conduct, and how to behave, you old men ought to be careful how you get to relating your boyish scrapes to each other and laughing over them before we are out of earshot. The other day grandfather read me a long lecture about the rights of property, temperance, and Sabbath breaking.

That night an old crony of his'n came to visit him, and they had a glass of punch together. They thought I was asleep on the sofa, and the way they run on about the fun they had when they were boys together! They told all about robbing Captain Lyman's melon patch, and it turned out it was on a Sunday night too! And when I went to bed they were taking their third glass of punch, and I don't know how many they had after that. I know grandfather's rheumatism was a great deal worse the next day, and he complained about his liver. Old men ought to be careful about taking too much punch.

I have noticed old men hate to give up that they can't stand as much as they used to, or as younger men can. They get mad if a fellow like me hints that they can't. But what's the use of fooling yourselves? We've all got to play out some day, and when a man feels he is loosing his grip, why not come down gracefully, and acknowledge the corn?

Now, in the above remarks, I don't mean any disrespect. I like old men in their place, but don't want so much of their advice. Give the boys a chance.—*Cin. Times.*

THE following paragraph cannot be read amiss by any youth:

Begin in early life to collect libraries of your own. Begin with a single book, and when you find or hear of a good book, obtain it if you can. After a while get another, as you are able, and be sure to read them. Make the best of your books; and in this way, when you are grown, you will have good libraries in your heads as well as on your shelves.—*Merrimac Monthly.*



THE AMATEUR DIAL.  
PUBLISHED MONTHLY.

RICHMOND, VA., - - JUNE 1, 1879.

Williams & Morton,  
Editors and Publishers.

PUBLISHERS' NOTICES.

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Avarice.

"Of Age's avarice I cannot see  
What color, ground, or reason there may be.  
Is it not folly, when the way we ride  
Is short, for a long Voyage to provide?  
To avarice, some little, one youth may own,  
To reap in autumn what a spring had sown;  
And with the providence of bees or ants,  
Prevent with summer's plenty winter's wants.  
But Age scarce sows, ere death stands by to reap,  
And to a stranger's hand transfer the heap."  
—Denham.

Avarice, like money, is the root of all evil; but a man may have much money, and be not at all avaricious. An avaricious man is generally a misanthrope. As he is hated so he hates. That seeking, clutching, grasping disposition of an avaricious man makes people hate him; the cringing, creeping, crawling disposition causes people to shun and pity him, though he does not deserve pity. He is hated, shunned and pitied by the same class of people; but nobody loves or respects him. His money is his curse, it does him no good; he can but will not use it. He enjoys nothing that he pays for with his money. If he loose a cent it makes him miserable, he is thinking all the time, night and day, without rest or sleep, how he can replace it. Cast off, hated, and shunned, he shuts himself from the world—a miser. Some, avaricious like himself, seek him to try to procure money from him, not from any love do they seek him. He drives them out, but they still persist in coming. But what makes him

more miserable is that he has no God but his gold, his money is his curse. And as Pope says:

"'Tis strange, the miser should his care employ  
To gain the riches he can ne'er enjoy."

The man that hates his fellow man and the man

"Who loves no music but the dollars' clink" are indeed pitiable creatures. A miser is hated and disliked, not loved. He starves because he will not spend his money to buy food. He is naked because he will not spend his money to buy raiment. He would work his fingers to the bone for gold, but he would die rather than spend that gold. If he should leave his gold for a moment and would loose the least part of it, he would die of thirst, starve, famish! rather than leave it again.

N. A. P. A.

The 16th of this month will find assembled in Washington City about one hundred amateurs, from all quarters of the Union, to attend the fourth annual convention of the National Amateur Press Association. This convention, by our own observations, and from all reports, bids fair to be the most important one that the Association has ever convened. There will be many important questions to decide. Prominent among which are the revision of the constitution, Huss' directory plan, Oldham's history scheme, besides innumerable minor schemes, plans, suggestions, etc., many of which deserve consideration, and if carried would be beneficial to the 'Dom in several respects.

The most important part, in the eyes of many, however, will be the election of officers. The contest will be very exciting and hot. There is at present three prominent candidates for the presidency—Huss, Briggs and Faynes. Which will be successful one it is impossible to say.

We wish to apologize for our inactivity during the campaign now so near at its close:

1st. As we were not members of the N. A. P. A., we considered our voice illegal.

2d. As we knew nothing of the merits or demerits of the several candidate, we having just entered the ranks, could not conscientiously support either in our paper.

If we are fortunate enough to attend the convention, and to be elected members of the Association, then and not until then, will we express our opinion; and vote for men, "good, tried and true."

S. E. A. P. A.

The Southeastern Amateur Press Association will meet in the National Hotel, Washington, D. C., Monday, July 14th. There will be a large attendance, and no doubt a most successful session.

RICHMOND PUBLIC SCHOOLS!

CLOSING EXERCISES.

The closing exercises of the several schools of this city took place during the early part of last month. At each exhibition the audience was large, and marked attention paid to all that was said and done.

Central School.

The closing exercises of this school took place Tuesday, June 10th, at 4 P. M. The medals were delivered by Rev. W. E. Judkin.

Clay School.

The closing exercises of this school took place on Tuesday morning, June 11th. The programme was very interesting.

High School.

The closing exercises of this school took place Wednesday evening, June 11th, at 8 o'clock, the audience was immense. The programme was as follows: Recitation, "Rock of Ages," Miss Annie Davis; Essay, "Hope," Miss Emma P. Turner; Recitation, "A Modern Cain," Miss Mary E. Folkes; Essay, "Beyond the Alps Lies Italy," Miss Zaidee Morton.

Dr. W. H. Ruffner, Superintendent of Public Instruction, delivered a very interesting address.

The medals was presented by Capt. John S. Wise.

Thirty-two pupils graduated. The diplomas were presented by Rev. J. G. Armstrong.

Leigh School.

The closing exercises of this school took place Thursday morning, June 12th. The medals were presented by Capt. J. H. Chamberlayne.

Bethel School.

The closing exercises of this school took place Thursday evening, June 12th. The medals were presented by Mr. W. F. Drinkard.

Bellevue School.

The closing exercises of this school, which, as usual, surpassed those of any other in the city, took place Friday morning, June 13th. The medals were presented by Chas. P. Rady, Esq.

Madison School

The closing exercises of this school took place Friday evening, June 13th. A portion of the opera "Pinafore" was rendered by the school. The medals were presented by J. H. Dinneen, Esq.

WORD HUNT.

Our Word Hunt last month was a decided success. The successful competitors were:

Mr. Emmet Dickinson, Richmond, Va., largest list, 275 words.

Miss Nelly Norton, Newton, West Va., second largest list, 230 words.

Mrs. M. G. A., Petersburg, Va., third largest list, 177 words.

Our word for this month is "Perseverance."

For the largest list of words composed from the above word, we will give 25 cents, cash.

For the second largest list, one pack of Visiting Cards, with name printed thereon.

For the third largest list, six months' subscription to THE DIAL.

Conditions: Open only to subscribers, but subscriptions may be sent with the lists. Only English words found in English dictionaries to count. No letter can be used twice in the same word unless it is repeated in the word "Perseverance." All lists must be sent in by July 20th, 1879.



# THE AMATEUR DIAL.

PUBLISHED MONTHLY.

RICHMOND, VA., - - JULY, 1879.

## MARY AND HER BEAU.

Mary had a dapper beau,  
His hair was sleek with ile;  
And every time that Mary spoke,  
The chap would sweetly smile.

He went with her to church one night  
And when she rose to sing;  
He smiled so loud the parson thought  
It too pronounced a thing.

And so the deacon turned him out,  
Yet still he lingered near;  
And on the steps he lounged about,  
Till Mary did appear.

And when at last she came, he drew  
Within his own, her arm;  
And smiled as if he fain would say—  
"You'll shield me from all harm."

"What makes that chap love Mary so?"  
The angry parson cried,  
"Why Mary loves the chap, you know!"  
The deacon then replied.

—The Hawkeye.

## MY PET CHICKEN.

Come, Biddie, come, my darling eat this bread.  
(O, pity me) before you lose your head  
Yes, one cold day, I do remember well,  
Two months ago, I took you from the shell;  
I kept you warm, I hugged you to my breast,  
Put you softly in your own little nest,  
From day to day I kept you by the fire,  
Lest you should stray and get into the mire;  
From day to day I kept you from the cats;  
From day to day I shielded you from the rats;  
From day to day I've given you to eat  
Bugs and flies mixed up with dough and meat.  
Is it not time my darling chick-a-dee,  
Is it not time something you give to me?  
I had a chill my pet, I'm sick to-day,  
If I eat you I will be well they say.  
So fare you well, now bow your precious head,  
I'll weep for you Biddie, when you are dead.

Petersburg, Va., June 13th. Mrs. M. G. A.

## THIS AND THAT.

Summer is now fully upon us.

Our editorial this month is set in brevier.

On the Fourth of July, *The State* will give a free excursion to its carriers.

Read the handsome advertisement of the Alpha Card Company.

During the middle of last month there was a series of walking matches in this city, by a grand combination of New York champions.

June 7th, Monumental Church Sunday School gave an excursion and pic-nic about six or eight miles up the canal. We are informed that it was a most enjoyable affair.

As many of our city subscribers will leave the city during the summer, we would say, that if they will hand us their address, *THE DIAL* will be sent to them without extra charge:

## Book Notices.

JACK AND I; OR THE HISTORY OF AN OLD HAT; by Milton Finch. Dayton, O.: Finch & Troupe, Publishers, 1878. Price 10 cents.

This book is very well written, the plot executed in a round-about-way, turns out very well in the end, it is interesting throughout.

The printing could be improved upon a great deal, binding and trimming good.

## AMATEUR NOTES.

The *Metropolitan* has suspended.  
Truly, the *Weekly Star* is the smallest.  
New paper from North Carolina, *The Chatterbox*.  
Hello! Hello! The *Telephone* has been received.  
Our *Free Blade*, received, contents good. Welcome to our exchange list.

The *Paris (Ky.) Times* will hereafter visit us weekly. Success to your Jim.

Thanks for several numbers of the *Stylus*. Also for several back numbers of the *Hawkeye*.

The *Young Californian* has suspended, there goes one of our best Pacific exchanges.

Chas. J. Ficke has purchased *Our Own Journal* from C. H. Young, and will continue its publication.

The *Composing Stick* is an excellent paper, neat typographical appearance and well written editorials demands this compliment.

The *Correspondent* is a neat and well conducted little magazine, its arrival is hailed with pleasure and it is always read with interest.

Thanks to the editor of the *Kaleidoscope* for a file of his excellent paper, it gave us much pleasure to peruse the back numbers of this journal. Can't some of our other contemporaries follow his example?

The *Microcosm*, of Lexington, Va., is an ably edited paper, though mostly of local character. We hereby tender our thanks for that "sweet" little notice of the "sweet little" *AMATEUR DIAL*, in your Number 4. Boys, why not send your paper to us with more promptness?

Can't some one of our contemporaries be kind enough to send us a list of all their Southern and Southwestern exchanges. We are very desirous of securing the address of every Southern and Southwestern amateur paper.

This month we add to our exchange list many new ones, but we wish to exchange with all. Please exchange.

We are in receipt of a handsome invitation to attend the Fourth Annual Convention of the National Amateur Press Association; to be held at the National Hotel, Washington, D. C., July 16th.

Also an invitation to attend the Third Semi-Annual Meeting of the Eastern Amateur Press Association to be held at the same place, July 15th

At time of writing we cannot say whether we can attend or not.

## FUNNY CLIPPINGS.

—Why is the knees of a boy's pants like murder? Because they will out.

—Love levels all ranks, it is said, but you can't love an onion well enough to level its rank.

—What is the difference between "collision" and "collusion?" U and I ought to know.

—What is the difference between a postoffice and a church that has the largest rector? One has the postmaster and the other the most pastor.

If there is a creature who deserves pity it is a little boy who has a sister just old enough to have a beau. Poor fellow, there is no place for him. If he enters the parlor, its "get out"—if he plays in the front yard, its "get into the back yard"—if he tramps on his sister's dress, its "you awkward thing." But when her big beau steps on her dress and tears it, its "you are very excusable, I should not have made the trail so long." If little brother dares to look over her shoulder at a picture book, its "take the book and go out of here." He don't take the book but he takes out. But when that big beau looks over her shoulder at the picture book, she looks as if she would like to have another on the other side to look over the other shoulder.—*Golden Gate*.

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25 Block.....10c	25 Embossed Border...15c
25 Flowered.....10c	25 Snowflake.....15c
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25 Cardinal Red....10c	20 Victoria Chromo...20c
25 Gold Dust.....10c	25 Glass, in gold....20c
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### Guest Editorial . . . .

#### **Electrical Hazards and Electronic Equipment in the Hospital**

**T**HIS TASK FORCE was charged with developing a set of minimum standards for the safety and periodic testing of hospital electrical and electronic equipment, particularly those items used in critical care areas, as guidelines for excellent medical practice and for potential legislation for Virginia. After an extensive review of the literature devoted to hospital electrical safety and of the efforts of many national organizations to develop standards for safety, this task force concluded that any statewide action should be approached in two stages. The first stage is to develop general guidelines which describe the minimum facilities, services, and programs that a hospital should provide to ensure the electrically safe practice of medicine. The second stage is to specify numerical standards of performance and safety which each piece or class of electrical or electronic equipment should meet under the above guidelines.

With regard to developing general guidelines for electrical safety in hospitals, the literature has little to offer with the notable exception of the reports of the Inter-Society Commission for Heart Disease (ICHHD) Resources and of the Committee on Electrocardiography of the American Heart Association.<sup>(1-4)</sup> Indeed, to our knowledge, these reports represent the only comprehensive treatment of requirements for a general hospital facility available to the general medical public. Even the individual medical center reports presently obtainable are neither as complete nor as exhaustive as Part III of the ICHHD Resources Report.<sup>3</sup> With regard to the specifications for individual pieces or classes of equipment, the reverse is true. The literature and standards-setting groups offer a chaotic plethora of information. At present, no less than 40 groups are involved with setting specific safety standards. Among the groups most likely to influence state legislation (National Fire Protection Association, Underwriters Laboratory, Veterans Administration, Association for the Advancement of Medical Instrumentation), there is no consensus about the exact details of specifications or methods of measuring them.

Some specific comments are appropriate to illustrate why this task force is reluctant to adopt any of the existing standards or to compile immediately a set from any or all of them. First, with respect to leakage currents, one of the hottest current topics in electrical safety, there is insufficient experimental evidence to justify setting a specific, upper limit of 1, 10 or 100 microamperes

as an acceptable value. The use of any particular value (e.g., microamperes, millivolts, etc.) ignores the concept of electrical energy, that is, the product of current and voltage integrated over the duration of application of electricity. Neither current nor voltage can be incriminated alone and the combination is the true hazard. We note, however, that with the exception of diagnostic and therapeutic equipment which uses large amounts of power (multi-channel monitors, portable x-ray and fluoroscopy, defibrillators, etc.), contemporary technology can reduce the leakage currents to arbitrarily very low values. Second, some of the standards of performance proposed, notably those of the Veterans Administration, are so restrictive in their wording that they tend to stifle irrationally any innovative algorithms for signal processing which a manufacturer might want to use. Finally, some of the standards are proposed by individuals of dubious qualifications while others are proposed by individuals or organizations in a position to profit from their adoption.

On October 19-20, 1971, the Virginia Hospital Association and the Virginia Regional Medical Program co-sponsored a conference on electrical hazards in hospitals. Personnel from over 40 Virginia hospitals attended. Each member of this task force participated presenting educational material about and clinical experience with electrically safe and unsafe environments in their respective hospitals. Emphasis was placed upon using electrical equipment safely, identifying both hazards and accidents and correcting them immediately, and initiating training programs for safe electrical practices for all hospital personnel. Clearly, formal mechanisms should be encouraged and developed for Virginia hospitals so that they may establish safety programs before being saddled with definite, perhaps unnecessarily expensive, and legally enforceable specifications which their equipment is to meet. *Finally, the Mere Existence of Protocols for Electrical Safety Which Are Carefully Followed in Practice in Each Hospital Will Greatly Reduce the Incidence of Electrical Hazards and Electrical Accidents Even Though Definite Limits on Leakage Currents, Frequency Response, Gain Accuracy, Etc., Do Not Yet Exist.*

In conclusion, this task force recommends the establishment of protocols for periodic inspection and maintenance of electrical and electronic equipment in hospitals in Virginia. This task force further recommends that the Inter-Society Commission for Heart Disease Resources Report, Part III,<sup>3</sup> be adopted as the general guideline for hospitals in Virginia as we have been unable to find in it any significant omissions or errors. Finally, this task force volunteers to monitor the progress of the individual equipment standards taking place at the national level and to compile a list suitable for recommendation to hospitals in Virginia as a companion document to the ICHD Part III report in the future.

The Virginia Heart Association Ad Hoc Committee to Review and Implement the Reports of the Inter-Society Commission for Heart Disease Resources, Chairman: Eugene F. Poutasse, M.D.; members: Carlos R. Ayers, M.D., Herbert M. Brewer, M.D., Martha A. Carpenter, M.D., Richard S. Crampton, M.D., J. Hayden Hollingsworth, M.D., Donald R. Holsinger, M.D., Reno R. Porter, M.D., A. Jarrell Raper, M.D., 316 East Clay Street, Richmond, Virginia 23219.



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## TASK FORCE OF THE VIRGINIA HEART ASSOCIATION AD HOC REVIEW COMMITTEE

*Chairman:* Richard S. Crampton, M.D.

*Members:* Alexander M. Clarke, Ph.D.

Frank P. Hunter, Jr., B.E.E.

Michael L. McCartney, Sc.D.

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Please address all correspondence to:

Richard S. Crampton, M.D.

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University of Virginia Medical Center

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# The Cytocentrifuge

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**A significant increase in the speed and accuracy in cytological diagnosis is possible with the cytocentrifuge.**

CYTOLOGICAL EXAMINATION is a well recognized and useful technique in cancer diagnosis. Since Papanicolaou's pioneering work, investigations of cytology have been refined and extended in scope. The cyto-centrifuge\* is an efficacious tool for its further simplification. The results are produced rapidly and economically.

The basic technique of cytocentrifugation has been described previously.<sup>1,2</sup> The device concentrates cells which adhere to a glass slide, while the supernatant fluid is absorbed by a paper strip. The sample is placed in a well within a plexiglass block mounted in the centrifuge's rotor. Then it is spun off through a horizontal polyethylene tube onto a slide, while the suspension fluid is drawn off radially by an absorption strip.<sup>3</sup> Although quantitative preparations are not produced, cell loss is no greater than with ordinary smearing methods.<sup>2</sup> Following centrifugation and air drying of

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\*Cytocentrifuge or Cytospin, Shandon Scientific, Selwicky, Pa.

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From the University of Virginia School of Medicine and the Medical College of Virginia.

JOHN B. ARNOLD, M.D.  
DIANE M. KOMP, M.D.  
WESLEY H. PETERSON, M.D.  
Charlottesville, Virginia

CHARLES L. JOHNSTON, JR., M.D.  
J. G. DOS SANTOS-NETO, M.D.  
Richmond, Virginia

the specimen, the slides are stained by whatever method is appropriate. For Wright's stained specimens, interpretation may be carried out within one half-hour of collection although some adjustment of the staining time ordinarily used for blood film staining may be necessary.

The machine can accommodate up to twelve samples simultaneously, but may be run with a lesser number. The operational controls are similar to those of a conventional centrifuge.<sup>3</sup>

This means of processing biological fluids has several applications. Watson<sup>2</sup> found cyto-centrifugation useful in studying peritoneal exudates and lymph node suspensions as well as overcoming morphologic distortion associated with the smearing of cells suspended in viscous media.

In studying the cerebrospinal fluid (CSF) of children with central nervous system leukemia, Komp and Cox<sup>1</sup> showed that with cyto-centrifugation concentration of small number of cells without deranging their characteristics was possible. This allowed for an early diagnosis of central nervous system relapse to be made. Jameson and Wells<sup>4</sup> used the technique to demonstrate cryptococci, otherwise undetectable, in the CSF of patients with Hodgkin's disease, compromised host defenses, and with meningitis of an obscure etiology.

The following brief case reports are examples of the use of cyto-centrifugation for rapid



clarification of diagnostic problems at the University of Virginia School of Medicine and the Medical College of Virginia.

### Case Reports

*No. 1.* T.S. is a 10-8/12 year old boy diagnosed as having metastatic embryonal rhabdomyosarcoma. He did well following initial radiotherapy and chemotherapy until September 1972, when he developed a left basilar pleural effusion. Thoracentesis produced 370 ml of serosanguinous fluid. Wright's stain of cytocentrifuged specimen revealed numerous clumps of tumor cells consistent with embryonal rhabdomyosarcoma (Fig. 1). Cell

cavity effusions enabling a diagnosis of underlying malignancy to be made, and therapy to be initiated immediately while cell block studies are pending.

*No. 2* B.P. is a three year old boy diagnosed as having acute undifferentiated leukemia. Intrathecal methotrexate, hydrocortisone, and cytosine arabinoside were given to prevent CNS leukemia. Following a difficult lumbar puncture, during which the needle scraped the vertebrae several times, examination of the CSF showed 35 mononuclear cells, and 400 red cells in the counting chamber. Staining with Wright's stain after cytocentrifugation

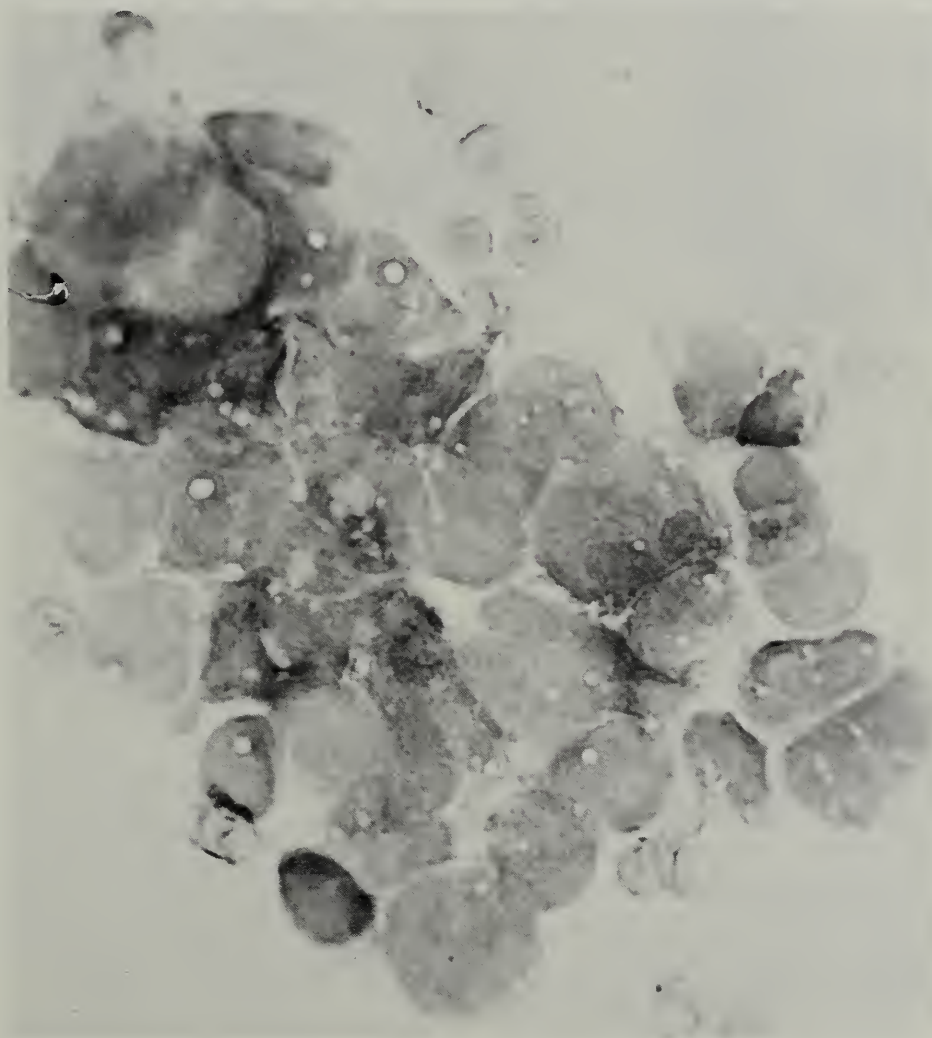


Fig. 1

block of the specimen which took 24 hours to process demonstrated cells similar to the primary lesion.

*Comment:* Cytocentrifugation offers a rapid method of processing and concentrating body

verified that these cells were normal marrow elements inadvertently lodged in the needle tip during the lumbar puncture (Fig. 2).

*Comment:* Because of the low protein content of cerebrospinal fluid, "mononuclear cells"

such as lymphoblasts, lymphocytes, monocytes, or bone marrow precursor cells cannot be clearly defined by Wright's staining of ordinarily centrifuged specimens. Attempts to

dose of intrathecal medication. Five "mononuclear cells" per cubic millimeter were present by chamber count. By cytocentrifugation all the cells were shown to be lymphoblasts.



Fig. 2

clarify morphology have been made by mixture of sediment with albumin, but this has not been entirely satisfactory. Cytocentrifugation allows definitive and rapid differentiation of "mononuclear cells" in the cerebrospinal fluid as a leukemic child. Accordingly, early treatment of CNS leukemia may be instituted, and equally as important, unnecessary treatment with potentially toxic drugs may be avoided.

*No. 3.* R.S., a child with acute lymphoblastic leukemia, was receiving maintenance intrathecal hydrocortisone and cytosine arabinoside every two months following resolution of CNS leukemia. He did well for thirteen months and was asymptomatic when spinal fluid was obtained in the course of a routine

Florid CNS relapse occurred one month later.

*Comment:* Remission of CNS leukemia is usually considered to be less than ten "mononuclear cells" per cubic millimeter in the CSF.<sup>5</sup> Small numbers of blasts can be concentrated on a slide by cytocentrifugation and impending CNS relapse identified earlier than otherwise possible.

*No. 4.* A 70 year old black woman, L.S., was found to have inoperable gastric carcinoma seven months earlier. She responded poorly to chemotherapy and became somnolent and complained of headache. Lumbar puncture produced a cellular CSF which was processed by cytocentrifugation and Wright's staining. The harvested cells were easily iden-



tified as malignant cells, some of which had a characteristic "signet" morphology (Fig. 3).

*Comment:* The development of CNS symptoms in a patient with a malignancy is an om-

easily overcomes both these problems. Small numbers of cells are concentrated, and even more importantly their morphology is unchanged.

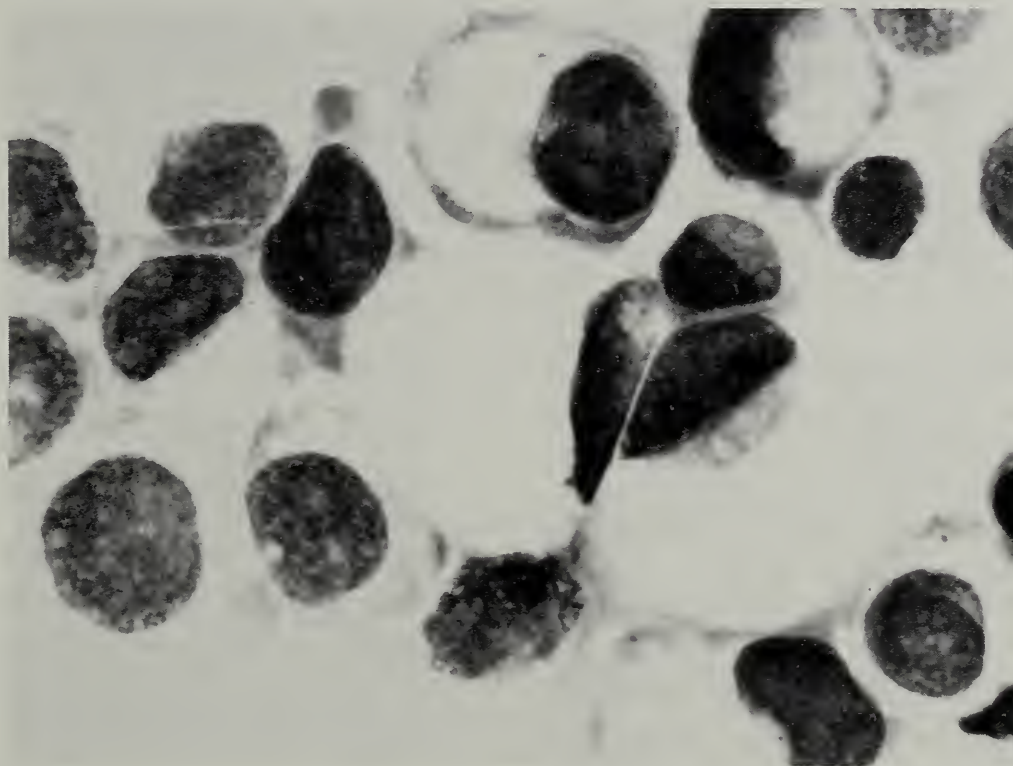


Fig. 3.

inous sign. Rapid diagnosis of CNS metastases is essential if therapy is to be successfully instituted. The cytocentrifuge enables malignant cells to be harvested from the CSF, even if few in number, without distorting their morphology. Accordingly, the early treatment of CNS metastases, with resultant decrease in morbidity and mortality, can be instituted.

### Discussion

The need to diagnose accurately and rapidly the cause of vague CNS symptoms and body cavity effusions in a patient with known or suspected malignancy is a common clinical occurrence. By obtaining cytological specimens which show unequivocal diagnostic features, i.e., undistorted cellular morphology, the correct cause of the problem can be ascertained. The exfoliated cells in a malignant effusion are often few in number and the concentration techniques frequently employed have the drawback of distorting the structural characteristics of the cells. The cytocentrifuge

The speed of availability of results is an important feature in its usefulness of this technique. Thus, it is possible to institute appropriate therapeutic measures within a few minutes following a diagnostic tap.

Although cytocentrifugation has been used most widely in hematopoietic malignancies, its potential applications extend to all forms of cancer. Problems in cell identification may be overcome by the use of a variety of stains, particularly Wright's and Papanicolaou's.<sup>6</sup>

### Summary

With the great advantages of rapidly concentrating cells, while preserving their distinctive morphological features, the cytocentrifuge is a promising new addition to the cancer physician's armamentarium.

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## Vitamin D Supplement

Infants, pregnant women and nursing mothers may need an extra dose of Vitamin D. The rest of us most likely already get more than enough.

This is the report of an Alabama physician researcher in the June 11th issue of the *Journal of the American Medical Association*.

The communication, by Paul A. Palmisano, M.D., of the University of Alabama Medical Center at Birmingham, is the first in a series of short articles that will appear in the *Journal* to help physicians fill a gap in their medical knowledge in the area of nutrition.

Most commercial milks, baby foods, margarines and breakfast cereals are fortified with Vitamin D. When this is added to Vitamin D obtained from exposure to sunlight, plus that *naturally* present in foods, the average American may receive several times the daily amount of Vitamin D he requires.

Extra pills on top of the naturally acquired supply of Vitamin D may prove too much for

the normal person to handle. The result may be nausea, vomiting, constipation, excessive urination, excess thirst, dehydration and general weakness. Vitamin D is essential to prevent rickets. This fact has been known for many years, hence the fortification of some common foods. Nutritional rickets now is rare in the United States.

Most persons get all the Vitamin D they need from intermittent exposure to sunlight plus eating the ordinary American diet, "except the recluse who is also a strict vegetarian."

Members of dark-skinned races will get less of the vitamin from sunlight than light-skinned persons.

The series currently appearing in the *Journal* will be one of many programs of the AMA Council on Foods and Nutrition to help keep the physician up to date. The articles will deal with myths in the dietary management of intestinal disorders, consumer knowledge of nutrition, reducing diets, nutrition in pregnancy, and other topics of the moment.



# Etiology and Surgical Management of the Middle Lobe Syndrome

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RICHARD N. DENIORD, M.D.  
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**Chronic or recurrent pneumonitis and atelectasis of the right middle lobe constitute "the middle lobe syndrome". Surgery is recommended by the author not only because medical management is unsatisfactory, but also because carcinoma is a cause of this condition in a significant percentage of cases.**

**B**ROCK<sup>2</sup> in 1937 reported the secondary effects of tuberculous lymphadenitis on the lungs and theorized that bronchial destruction and cicatrization resulted in distal lobar bronchiectasis and chronic pneumonitis. He felt that the right middle lobe bronchus was most susceptible because of drainage to the lymph nodes about the base of this bronchus from the entire right lung and even from the left lung. Graham, Burford, and Mayer<sup>5</sup> in 1948 first used the term "middle lobe syndrome" to characterize this condition of atelectasis which they attributed to bronchial compression from peribronchial lymphadenopathy.

Culiner<sup>3</sup> in 1966 challenged this hypothesis and noted in only one of Brock's cases was total bronchial obstruction by compressing nodes found. He presented nine cases of his own, none of which showed peribronchial compression, and concluded that primary nodal bronchial compression and secondary distal

atelectasis as a cause of the middle lobe syndrome was unsubstantiated except in rare instances. He felt that the atelectasis resulted from the fissures isolating the middle lobe from the upper and lower lobes and thus from the aerating effects of collateral ventilation. Secondary infection was superimposed on repeated or protracted atelectasis and resulted in a shrunken middle lobe and occasionally secondary peribronchial lymphadenopathy. Bradham, Sealy, and Young<sup>1</sup> also in 1966 emphasized that well developed fissure lines might be a logical explanation for some cases of localized middle lobe disease and presented 41 patients operated upon for persistent infection of the middle lobe.

In order to find what disease entities presently cause chronic middle lobe pneumonitis and atelectasis and whether proximal bronchial obstruction or lack of collateral ventilation seemed the most important pathological process, we decided to review our experience with the middle lobe syndrome in a community hospital setting.

## Clinical Material

Between 1960 and 1972 we performed 37 exploratory thoracotomies for patients with chronic or recurrent right middle lobe pneumonia. Nineteen of these lobes demonstrated severe atelectasis. Fourteen of the 37 cases had significant proximal bronchial obstruction demonstrated either by bronchoscopy or bronchogram. It is of interest that ten cases of severe atelectasis were not associated with demonstrable proximal bronchial obstruction either in the preoperative workup or at sur-

gery. On the other hand, a few cases associated with proximal bronchial obstruction, while producing chronic pneumonia in the lobe, did not appear to produce severe atelectasis. The etiology of these cases is presented in Table 1.

TABLE 1	
ETIOLOGY OF THE MIDDLE LOBE SYNDROME IN 37 THORACOTOMIES	
<i>Etiology</i>	<i>Number of Patients</i>
Chronic pneumonia with interstitial fibrosis.....	14
Bronchiectasis.....	13
Carcinoma.....	5
Tuberculosis.....	3
Chronic granuloma, etiology unknown	1
Foreign body (in 22 month old child)..	1

Three additional middle lobectomies were discarded from this series because the patients presented more with a mass lesion than with chronic pneumonitis. Two of these cases were caused by epidermoid carcinoma and one was caused by a tuberculoma. There was one post-operative death in the series of 37 patients.

chial orifice generally on bronchoscopy. They found complete bronchial obstruction with bronchography in only 12 patients. Rubin and Rubin<sup>7</sup> in 1950 reviewed 14 cases, but found no bronchial obstruction due to peribronchial nodal compression. In the 1966 report by Bradham, Sealy and Young<sup>1</sup> of 41 patients operated upon for persistent infection of the middle lobe, they found only ten with bronchial compression, stricture, or distortion on the basis of lymphatic disease. Preoperative bronchoscopy revealed narrowing of the middle lobe orifice in only eight instances and bronchography done in 24 of the patients revealed bronchiectasis in 16, non or incomplete filling in seven, and a narrowed middle lobe bronchial orifice in one. They noted that the anatomical problems peculiar to the middle lobe tended to make medical management unsatisfactory.

We noted at preoperative bronchoscopy the take off of the middle lobe bronchus was often angulated downward by the atelectasis of the

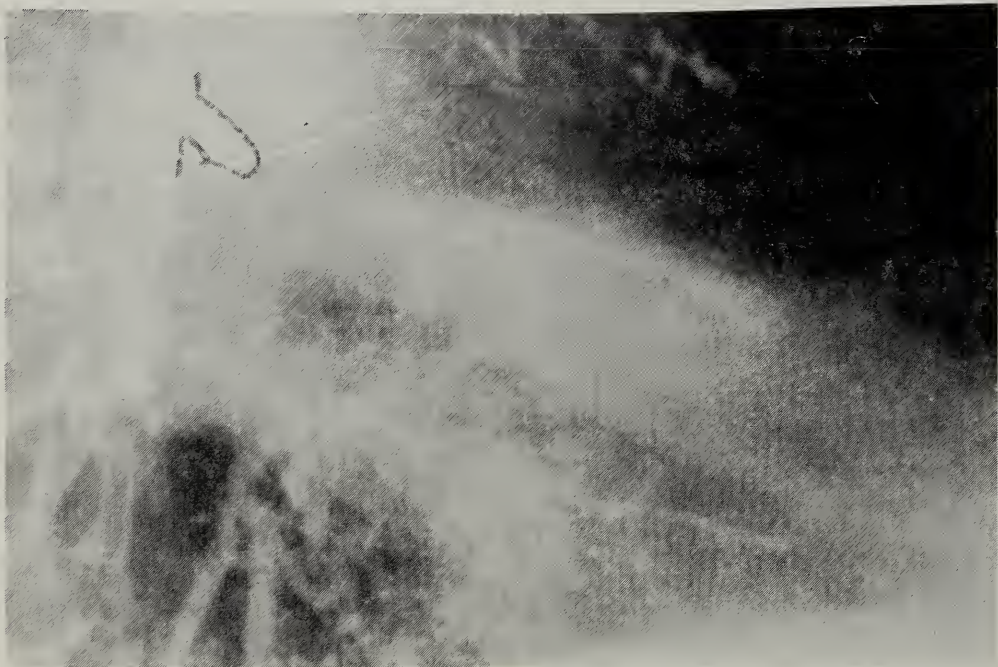


Fig. 1. Bronchogram demonstrating proximal middle lobe bronchial obstruction (outlined) with severe atelectasis of the middle lobe. Compression by peribronchial lymphadenopathy was found at surgery.

### Discussion

Paulson and Shaw<sup>6</sup> in 1949 reported 28 cases of chronic atelectasis and pneumonitis of the middle lobe and described a slit-like bron-

lobe and thus the orifice often was easier to visualize. In the 14 cases which demonstrated proximal bronchial obstruction (Fig. 1), the obstruction was due to secretion, mucosal in-



flammation, or blood in sputum, nodal compression was present in seven, and one bronchus was blocked by obvious tumor. Our indications for surgery consisted of recurrent or chronic respiratory infection limited to the middle lobe and often associated with chronic cough, hemoptysis, and occasionally pleuritic chest pain. Exploration was recommended in any case of chronic pneumonitis that persisted for two months without clearing on appropriate medical therapy.

It was of interest to us that several of the patients who demonstrated chronic pneumonia with interstitial fibrosis had a history of recurrent pneumonia and were asymptomatic between their illnesses. We have seen a number of patients with classic middle lobe atelectasis and pneumonitis clear their disease completely over a three to four week period, but often they are subject to recurrent disease. These are the patients whose bronchi often appear thread-like on bronchogram rather than demonstrating the bronchiectatic pattern (Fig. 2) which 13 of our patients had. In the qui-

classic picture of bronchiectasis. Our medical colleagues often prefer to treat patients with recurrent middle lobe pneumonitis on long term or repeated courses of antibiotic therapy. We would agree that this is appropriate treatment for the patient who is a poor surgical risk or who does not desire surgery.

This series confirms the decreasing incidence of tuberculosis as a cause of the middle lobe syndrome and thus perhaps the decreasing importance of peribronchial nodal compression as a cause of middle lobe atelectasis. Culiner<sup>3</sup> and Bradham, et al.,<sup>1</sup> make convincing arguments for the lack of collateral ventilation as an important etiologic factor in chronic middle lobe infection. Whether proximal bronchial obstruction due to secretions, inflammation, and/or peribronchial lymphadenopathy also plays a significant role in most cases is unclear. The absence of demonstrable proximal bronchial obstruction at the time of bronchoscopy and bronchogram does not necessarily rule out obstruction as a significant contributing factor at some earlier time in the disease process.



Fig. 2. Bronchogram demonstrating bronchiectasis with chronic middle lobe pneumonia and atelectasis. No proximal bronchial obstruction was noted on the bronchogram or at surgery.

escent period in these patients a bronchogram may be relatively normal. It may well be that prompt antibiotic therapy in this type of patient prevents the development of the more

Our experience over the past 12 years reveals carcinoma may present as chronic middle lobe pneumonitis and atelectasis. Of the five patients with carcinoma undergoing explora-

tory thoracotomy, a preoperative diagnosis was made in one when bronchoscopy and biopsy revealed epidermoid carcinoma obstructing the middle lobe bronchial orifice. Bronchograms showed bronchial narrowing in two additional cases, one of which was an adenocarcinoma and the other was an epidermoid carcinoma, but cytologic studies were negative preoperatively. The two cases which showed no evidence of bronchial involvement on bronchogram were caused by alveolar cell carcinoma in middle age females and presented as chronic pneumonia with some atelectasis. Three of the five cases were resectable, but none survived over one year postoperatively.

Due to the known chronicity of middle lobe pneumonia, many physicians tend to delay diagnostic procedures much longer than they would for chronic pneumonia in other areas of the lung. We feel this is an unwise policy for several reasons. While proximal bronchial obstruction due to compressing lymphadenopathy is apparently a less frequent cause of middle lobe pneumonitis and atelectasis than insufficient collateral ventilation, both conditions contribute to chronicity. We agree strongly with Bradham, Sealy, and Young<sup>1</sup> that anatomical problems peculiar to the middle lobe tend to make medical management unsatisfactory. In addition this series confirms a significant incidence of malignancy in chronic middle lobe pneumonia. Ferguson and Burford<sup>4</sup> stress that foreign body in the child and bronchogenic carcinoma in the adult must be considered in the differential diagnosis of bronchial compressive disease. In organizing pneumonia they recommend exploration after only three to four weeks of observation.

### Summary

The middle lobe syndrome characterized by chronic pneumonitis and atelectasis was orig-

inally attributed to bronchial compression from peribronchial lymphadenopathy. This series of 37 thoracotomies confirms recent reports that poor natural drainage and lack of collateral ventilation due to well developed fissures is the more frequent cause of chronic middle lobe disease. Exploratory thoracotomy is recommended in patients with recurrent or chronic middle lobe pneumonitis and atelectasis not only because "the anatomical problems peculiar to the middle lobe tend to make medical management unsatisfactory", but also because carcinoma is a significant cause of this condition.

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# Rural Health Care in Virginia

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**This program has been successful in bringing health care to citizens of a rural area. It has shown the value of the nurse practitioner and the family health worker. It may also stimulate young physicians to practice in rural areas.**

**M**UCH HAS BEEN SAID in recent years about the disastrous plight of rural America with respect to delivery of health care, and many articles have been written in the popular press about the plight of specific areas, usually implying that the modern physician has no sympathy for the small town residents who no longer have access to a general practitioner in their small village or who have a modern small community clinic and/or hospital without professional staff to operate it. In recent years several pilot projects have developed to try to answer the plight of specific rural areas, and carefully study the problems of rural medical care.

The Central Virginia Community Health Center had its origins in 1970 as an outgrowth of a community's attempt to solve many of the problems facing other rural areas. The resi-

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dents of a sparsely settled three-county rural area along the James River in central Virginia had complained for several years about the declining number of physicians in the area and the problems involved in driving to the available medical facilities—60 miles to Richmond, 50 miles to Charlottesville, or 40 miles to Farmville. In this area, however, the “silent majority” was the low income families, both black and white, who had little access to medical care, primarily because of the economics involved with transportation to one of the community hospitals or University clinics serving this area. Stimulated by the development of neighborhood health centers in other parts of the country, the local community action organization approached Dr. Kenneth Crispell, Dean of the University of Virginia School of Medicine, in 1969, with the request to assist the community in developing an up-to-date comprehensive health care program for the area. This cooperative venture between the community and the University resulted in the establishment of a non-profit corporation with a Board of Directors composed of local civic leaders, area “poor” residents, and University faculty members. Grant funds were obtained from the Office of Economic Opportunity in October, 1970, and operations were started thereafter out of temporary facilities set up in a cluster of trailers located in the geographic center of the rural three-county area served by the program. At the end of the first 18 months of the operation, approximately 6,000 patients representing some 2200 families have received services at least once from the Center. Professionals have been recruited to work in the Center and a large number of area residents have been trained to function in health careers that

enable the Center to effectively deliver care to patients in this sparsely settled poor rural area.

The objectives of The Central Virginia Community Health Center are several. Clearly, the first objective is to deliver top quality personalized, comprehensive health care to the residents of this rural three-county area, regardless of the socio-economic, racial, or intellectual background of the patient. In this instance, however, health care is interpreted in its broadest possible aspects, with concern for the financial well-being, mental health, and the home environment of the patient being as important as the treatment of acute illnesses. To effectively meet this goal, the Center has established both a social service component and an environmental health component with the goal of helping each family solve the problems of employment, housing, and so on. The concern for the aspects of quality of housing and employment are of particular importance in this rural area where job opportunities are few, young people are leaving the community to go elsewhere, and public housing and transportation are virtually non-existent.

The second goal of the program is to serve as a research model for the development of new ways of delivering health care to rural areas. This is obviously the major reason for justifying the involvement of a university medical center in the development of a rural program of this nature. The University of Virginia School of Medicine has felt a strong commitment to elucidate the reasons why physicians are unwilling to go into practice in rural areas of the State and to try to develop means of changing the attitudes of young physicians to rural practice. The Central Virginia Community Health Center was seen to present an ideal opportunity to evaluate one possible solution to the problem. By providing physicians with University faculty status, with a clinic setting that allowed reasonable scheduling of hours for coverage by other physicians and by scheduling ongoing participation in professional activities weekly at the University Medical Center, it was hoped that the program could demonstrate to medical students and house officers

that two of the three major objections to rural practice—professional isolationism and lack of free time away from the demands of practice—could be overcome. The third major objection to rural practice, that of dissatisfaction of wives and families with rural life, clearly remains a problem which has not been solved yet.

In addition to the University's interest in changing the attitudes of physicians towards rural practice, The Central Virginia Community Health Center has served as an ideal proving ground for evaluating the value of the Nurse Practitioner in the health care delivery system. Nurse practitioner students from both the Pediatric and Adult Nurse Practitioner programs at the University are involved in the Center for part of their clinical experience. Furthermore, the Center utilizes both pediatric and adult nurse practitioners in the day-to-day operation in an extremely effective manner. An adult nurse practitioner serves to evaluate drop-in patients and to initiate work-up of many of the adult patients coming in for health evaluation. Six pediatric nurse practitioners serve as captains of health care teams spending part of their time in the Center seeing children for both well and sick child visits. They also direct the field activity of the family health workers, each team captain and four or five family health workers assigned to her team covering a specific geographic area. Each health care team spends one day a week at the Center, and whenever possible patients from their team area are given appointments to be seen on that day so there is a stable contact of patients with physicians, nurse practitioners and family health workers from their team. The other days are spent in the field with the nurse practitioner supervising the home care activities of the team members. In the very near future, four of the health care teams will begin operation of satellite clinics in remote areas of the three counties, depending on a physician at the Center for back-up.

The training program for family health workers has also been an important part of the research and development activity of the Center. Twenty-five area residents have been



trained in an intensive four month program to serve a combined role of nurse's aide and social case worker. The family health workers have generally had high school level education, but none of them had previous training in medical-related areas. Each family health worker is assigned a caseload of families and she is responsible for making periodic assessments of home conditions as well as following up specific medical problems. Her responsibilities include assessment of needs of family for other community services such as vocational rehabilitation, welfare, or food commodities program, as well as serving as the patient's advocate during the individual patient's contact with the Center. During the working day in the Center, the family health worker is responsible for escorting the patient from the reception area to the examining room, preparing the patient for physician examination by taking vital signs. She then assists the physician as needed during his examination of the patient. At the conclusion of the physician's contact with the patient, the family health worker is responsible for seeing that the patient gets to the appropriate laboratory area, that the patient understands the physician's instructions, that the return appointment is arranged, and that the patient has access to transportation home and for return visits. These functions have been invaluable in the effective delivery of medical care to many of the semi-literate patients served by the Center.

The Center has also become an integral part of the more traditional training programs of the University. Early in the planning of the program, arrangements were made for medical student contact with the Center in two basic areas. The first of these involves brief visits to the Center for groups of first year medical students with a faculty advisor as part of the experience in introducing the students to systems of delivery of health care. The second student experience is a one month elective clerkship in family medicine offered at the Center, in which the student participates not only in patient care activities in the Center, but also spends part of his time going into homes on medically-related

visits with family health workers and nurse practitioners. At the post graduate training level, residents in family practice and in pediatrics may elect rotation at the Central Virginia Community Health Center working under the supervision of the faculty members on the staff. The response to date, particularly from the medical students, has been very gratifying, and will hopefully be reflected in an increasing interest in young physicians in making innovative ventures into practice in rural areas of the State.

### **Problems Encountered**

There have been many problems in establishing such a program in an isolated area with minimal pre-existing medical resources. A number of these have involved inter-relationships with the University of Virginia Hospital which serves as primary back-up hospital for the Center. While the solutions to many of these problems have not been finalized, the recognition of the problem areas and the willingness to involve hospital personnel in seeking solutions to them has been an enlightening process to many individuals involved with the program, particularly those who had minimal involvement with rural programs in the past.

One of the major areas which has yet to be solved involves the exchange of patient information between the outlying Center and the University Hospital. Many of the patients seen by the Center had previously received at least episodic care from the University of Virginia Hospital or its Out-Patient Department, but obtaining access to this information for use in the efficient management of patients, particularly those with chronic diseases, has been difficult. One solution, adopted in direct violation of the Hospital rules, was to have a faculty member obtain the patient's hospital chart and transport it to the Center for abstracting information. This approach was used as a matter of expediency in part and partly to force the Records Department of the Hospital to try to establish a more satisfactory working relationship with the ever-increasing numbers of extramural clinical activities of the Medical Center.

As one can imagine, this precipitated a crisis within the Records Department when it was finally brought to their attention, and has resulted in at least beginning discussions of ways to facilitate exchange of information with affiliated programs of the Medical Center. On the other hand, input of information from the Central Virginia Community Health Center's record to the University Hospital record for specific patients was relatively easy when patients were referred for specific problems. Unfortunately, there is no efficient way at the present time to incorporate essential patient data into the University Hospital record system on patients who have not been directly referred to the University Medical Center. This often leads to unnecessary duplications of laboratory studies if a patient reports to the Emergency Room of the University Hospital without previous referral from the Central Virginia Community Health Center. Another major problem in the exchange of patient information resulted from the utilization of different systems of patient identification. Many federally funded programs now require the patient identification to be based on a family numbering system, whereas the University Hospital, like most large medical centers, uses the sequential patient numbering system. While the exchange of patient information has become a time-consuming operation involving the exchange of large volumes of paper, efforts are being made to develop uniform systems for all programs affiliated with the University Center.

The next most important problem area which has faced the Central Virginia Community Health Center has been the need to provide transportation for both patients and staff. The rural area served by the program has no public transportation system, and the vast majority of the residents do not have adequate private transportation to commute a hundred miles round trip to receive medical care at the back-up hospital. While it has been an expensive and frustrating part of the Center's activities, it has been necessary to develop a fleet of Center-owned vehicles to provide patient

transportation both from their homes to the Center and from the Center to the University Hospital when diagnostic referrals or hospitalization is necessary. The total operating cost for such a program runs approximately \$100,000 per year. This includes the transportation of approximately 40% of the patients to the Center to receive medical care, transportation of 10% of patient encounters to the University Hospital, and the transportation of the family health workers to homes, for 30% of all patient encounters at the present time take place in homes. An additional small component of the transportation system involves transportation of a number of staff members from the University Hospital to the Center. One alternative approach to the problem of transportation of staff and patients from outlying centers to the University Hospital may be to centralize this portion of the transportation system for all affiliated programs at the hospital rather than with each individual affiliated operation. Needless to say, this approach has not been received with enthusiasm by the hospital administration.

The third most important activity that has involved the University Hospital to a significant extent has been the establishment of means of providing medications for patients. The prospect of establishing a satellite pharmacy at the Central Virginia Community Health Center to be operated by the University Pharmacy was abandoned in favor of utilization of vendor contract programs with local pharmacists, for two pharmacists were present in the target area served by the Center, and reasonably located in terms of patient access. However, a number of specific drugs are obtained still from the University Pharmacy, and in many other programs, and direct management of the pharmacy at the health center may well be more efficiently carried out by a hospital-based pharmacy.

The establishment of laboratory services, including radiology and electrocardiography have contributed greatly to minimizing patient transportation to the University Hospital. With the presence of a registered radiological technologist, one registered laboratory technologist and an assistant laboratory technician, the Cen-



ter is able to provide for most of the day-to-day needs of the program other than complex radiological studies. At the present time, it has proven to be more economical to contract out blood chemistries to a private laboratory than to the University Hospital laboratory, in spite of the fact that the private laboratory provides daily pick-up service for samples and teletypes the laboratory reports to the Center daily.

The fifth major area of involvement of the program with the University Hospital is probably the most important for the long-range success of the program in terms of quality care. This involves the ongoing involvement of the Center professional personnel, both physicians, dentists, and nurse practitioners, on a regular basis each week with the educational activities at the University Hospital. Participation in specialty clinics, individual research activities, and staff education conferences such as Grand Rounds, etc., are considered to be vital for the continued education of the Center staff, but also serve another important function which we had not anticipated. The latter is the continued education of the University staff, particularly the House Staff and nurses, about the activities of the Center. This has resulted in marked improvement in patient care activities by utilizing the Center for follow-up care of patients who have come initially directly to the University Hospital and by utilizing the supported services, such as social service and

transportation, in assisting patients and families of patients who are seen at the University Hospital.

### Summary

At the present time, it is difficult to document with statistics the immediate impact of the establishment of the Central Virginia Community Health Center on the welfare of the communities served. However, the establishment of an ambulatory care facility affiliated with the University of Virginia Hospital has made it possible to manage 90% of the patient problems at the local level without hospitalization or referral to a distant area for most diagnostic studies. The effective utilization of nurse practitioners and locally trained family health workers has been well received by both the physicians and the patients in the area, and their functions have become an invaluable part of the patient care activities at the Center. The ultimate measures of success of the program must be based on improved vital statistics of the area and upon the demonstration of increased attraction of physicians into rural communities as a direct result of their contacts with successful programs such as the Central Virginia Community Health Center.

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# The Teenage Pregnancy Problem

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**The teenage pregnancy, all over the nation as well as in Richmond, is becoming an alarming burden to the society. The various reasons for this recent trend are analyzed. For Richmond, the efforts being made to alleviate the problem, especially concerning its prevention, are presented. The author advocates a multi-disciplinary approach, to aim at a more efficient solution to the present tragedy.**

**P**REGNANCY in the unmarried teenage girl has always been regarded as a tragedy for the individual and her family. Even though "traditional morality" is yielding to a more sympathetic and understanding attitude, teenage pregnancy remains a painful event for the individual and a burden to society.

Although the condemnation of society has eased the pressures, the threat to mental health, physical health, and future personal development still exist. The number of teenage girls caught in this tragedy has unfortunately continued to increase. The Commission on Population Growth and the American Future found that the birth rate is decreasing in every category except among teenagers.<sup>1</sup> In fact, the rate of out-of-wedlock births among ado-

lescents increased 250% from 1940 to 1966, with almost 200,000 such births expected for 1972. In a survey made in the State of Virginia, in 1972, Dr. James J. Dunne, Director of State Health Department, found that in 30 antenatal clinics in the eastern part of Virginia, 55% of the patients belong to the teenage group.

As we are particularly concerned with any unwanted pregnancy, at the Family Planning Clinic of the City of Richmond,\* we have of course focused our attention upon the teenage problem.

It seems logical to relate the increasing rate of teenage pregnancies to the present "sexual revolution". In a nationwide study of teenagers the Johns Hopkins sociologists, Zelnik and Kantner, estimated that 2.5 million unwed females between 15 and 19 years of age have had intercourse. Premarital sex is beginning at earlier ages and is increasing in extent.<sup>2</sup> In order to explain this revolutionary change, let's have a look at the population at risk first.

Data from vital statistics show that during the decade from 1960 to 1970, the population of the United States of America, of Virginia and of the City of Richmond have increased (Table I).

TABLE I  
POPULATION INCREASE FROM 1960 TO 1970

	USA Population	Virginia Population	Richmond Population
1960.....	179,323,175	3,954,429	219,958
1970.....	203,184,772	4,651,448	247,600
Increase....	12.6%	15.3%	13.3%

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\*The Family Planning Clinic of the City of Richmond is located purposely in an underprivileged area in Church Hill with a low income and high percentage of illegal births, venereal diseases, criminal abortions, etc.



During the same period, the teenage population (from 15 through 19) has increased in a higher proportion (see Table II), in the United States of America, in Virginia and in Richmond.

TABLE II  
TEENAGE (15-19) POPULATION INCREASE  
FROM 1960 TO 1970

<i>Boys and Girls 15-19 Years</i>	<i>In United States</i>	<i>In Virginia</i>	<i>In Richmond</i>
1960.....	13,467,000	324,407	15,246
1970.....	19,169,000	440,872	22,647
Increase.....	42.3%	35.9%	48.5%

If we consider the teenage girl population only, it shows also an increase for the United States of America, for Virginia State and for Richmond City (see Table III).

TABLE III  
TEENAGE (15-19) GIRLS INCREASE FROM 1960 TO 1970

<i>Girls Age 15-19 Years</i>	<i>In United States</i>	<i>In Virginia</i>	<i>In Richmond</i>
1960.....	6,585,582	156,793	8,369
1970.....	9,436,501	217,824	11,833
Increase.....	43.3%	38.9%	41.3%

American girls become sexually mature at an early age. Zacharias, et al., by questioning 4,844 young American student nurses, found that the mean age of menarche is now about 12 years, with pubic hair and breast budding appearing about nine months prior to the first menstrual period.<sup>3</sup> Realizing that the age of puberty in the late 19th century was 16 or 17 years, we can see that sexual maturity is attained among the American girls much earlier nowadays. With the combination of the increased number of teenage girls and their earlier sexual maturity, we should expect more pregnancies among these people.

These two factors are not the only ones responsible for the actual increase of teenage pregnancies. The so-called "sexual revolution" has its share also. As adolescents demand more independence from what was established before, from the family rules and restrictions,

the sexual identification, the immaturity of impulse control easily contribute to a number of these teenage pregnancies. The importance of chastity currently is quite limited and apparently has been replaced as a value or as a goal, by fidelity after marriage.<sup>4</sup>

Evidence that these adolescent pregnancies out of wedlock are increasing can be found in two recent studies. M. O. Yurdin has noted for the past eight years that the overage rate of illegitimacy has almost leveled off, despite an increase in the absolute number of illegitimate births,<sup>5</sup> but the national rate of illegitimacy for teenagers is increasing. J. J. Demsey, studying the illegitimate pregnancies in Baltimore, showed a higher rate among adolescents who have already been pregnant (27.6%), than among those who have not (3.3%).<sup>6</sup> Evidently when a teenage girl has been once pregnant, she is at high risk for repetitive illegitimate pregnancies.

The "broken home" has not been included as a main cause of teenage pregnancies, as this factor has been overemphasized. Von Der Ahe's study demonstrated that in 85% of the cases both parents are living, in 70% both parents are still married and living together.<sup>7</sup> This negates the theory that the prime reason of these teenage pregnancies is the "broken home".

The tragedy of a teenage pregnant girl deserves all our sympathetic attention, because of a higher risk for her pregnancy, the mental anguish inherent to her situation, and of the great handicap for her future. Medically speaking, the teenage pregnant girls are at greater risks, if not directly because of their age, at least because of their reluctance or their inability to follow medical care until late in pregnancy. The poor nutritional habits of these girls is also an important factor for higher rate of complications including premature birth and infant mortality.<sup>8,9</sup> Donnelly in Iowa showed that the perinatal death rate for unmarried mothers of 33.4 per thousand live births is much higher than the 26.6 for the total obstetric groups.<sup>10</sup> Herzog and Bernstein showed the death rate and prematurity

rate of infants born out of wedlock to be double that of legitimate babies.<sup>11</sup>

In addition to their personal feelings about their unexpected and undesired pregnancy, the pregnant teenagers frequently suffers more or less complete isolation from their peers. They lose their normal reference group.<sup>12</sup> This disruption of social ties is compounded by feelings of shame, fear and anxiety about the delivery of the baby, and uncertainty about their future.<sup>13</sup>

Forced marriage has been a traditional solution to the dilemma in some segments of our society. L. G. Burchinal showed that young marriages in the USA (one-third or one-half of them were due to premarital pregnancy) are under greater stresses; divorce rates were two to four times higher than marriages between persons in their twenties.<sup>14</sup> Before the availability of legal therapeutic abortion, the education of these teenage pregnant girls was nearly always interrupted, and very often permanently interrupted. This unfinished schooling and the burden of motherhood at an early age lead to many other failures in their life, such as the inability to establish a stable family life, or to become self-supported.<sup>15</sup>

cost of these illegitimate adolescent pregnancies increased so much in recent years that it has attracted the attention of the federal government as well as many private organizations.

What has been done in Virginia and in Richmond merits some comments. In Richmond the adolescent who becomes pregnant and wishes to keep her pregnancy may elect to stay home and attend her regular school, or attend a special school for pregnant girls, or she may leave her home and stay in one of four maternity homes: See Table IV.

One can see that these homes are no longer fully occupied as they were before the liberalization of the abortion law in 1970. Seton House for instance, in 1969, had helped 83 pregnant women (52 of these were teenagers), in 1970, 82 women (52 teenagers) in 1971 only 44 women (28 teenagers) and in 1972 only 52 women (39 teenagers). In all of these homes, instruction is provided by teachers from the Richmond Public Schools, which includes arts and crafts. Nursing care as well as medical antenatal care is provided.

If the pregnant adolescents elect to stay with their family, and do not choose to attend their regular schools, they can go to Park

TABLE IV  
HOMES FOR PREGNANT TEENAGERS IN THE RICHMOND AREA

<i>Name, Address and Telephone Number of the Home</i>	<i>Number of Places</i>	<i>Average Occupancy</i>	<i>Cost</i>	<i>Delivery at</i>
1. Brookfield, Inc., RFD .6, Box 298, Glen Allen, Va. 23060 804/262-3990	20	5	\$650 for 3 months (\$7.50 per day)	Chippenham Hospital
2. St. Gerard's Maternity Home, 2511 Wise Street, Richmond, Va. 23225 804/233-6061	14	5	\$5.00 per day	M. C. V. Hospital
3. Salvation Army Home and Hospital, 2705 Fifth Ave- nue, Richmond, Va. 23222 804/643-7596	14	6	\$7.50 per day (or less)	M. C. V. Hospital
4. Seton House, 7700 Wash- ington Highway, Rich- mond, Virginia 23227 804/266-2439	16	9	over \$7.00 per day	Richmond Memorial Hospital

The difficulty for these women to find a good job and to earn enough money to support themselves and their child have imposed heavy burdens upon the Welfare Departments throughout the country. The number and

School, 700 Blanton Avenue, in the Byrd Park area. The Richmond Public School system has provided educational services for pregnant teenagers since 1969 at Center House, then at Sidney School and since January 1972, at Park



School. They offer courses in English (8th to 12th grade), History (8th, 9th, and 11th grade), General Mathematics (8th, 9th, and 10th grade), Typing (I and II), Biology 10, Science 8, Government 12, General Business and Home Economics. The pupils receive free bus tickets for the Virginia Transit Company and they buy their own lunch, unless they are entitled to free school lunch. The need for such special schools has become less important since the Richmond Public School Board has ruled, in the spring of 1972, that the girls who become pregnant may remain in their regular schools if it is their choice, provided there are no medical complications. Park School enrolled only 70 pupils in 1972, while their capacity is 85.

Regarding Family Planning Services, Virginia has been a very liberal State. These services have been legally accepted since 1940 and sterilization has been included as a means of contraception long before most of the other states. We have now 160 Family Planning Clinics in Virginia and Family Planning services are delivered on certain days in 170 other clinics (Medical Clinics or Maternity Clinics). In 1971, 75,015 recipients participated in Family Planning Program in the State of Virginia.

fortunately still become pregnant, may seek therapeutic abortion, either in Virginia itself or in other places such as Washington, D. C., or New York, provided they seek help early.

The policy at the Medical College of Virginia is to perform a suction type of D&C up to 12 weeks and a saline injection from 16 to 20 weeks.

In the year 1972, at the Medical College of Virginia, the therapeutic abortions performed on teenagers reached a percentage of 44% of all D&C's for therapeutic abortions and 46% of all saline injections for therapeutic abortions.

We still have too many cases demonstrating that teenage girls have not heard of contraceptive methods before they get pregnant, or that they had some vague knowledge of this but did not know how to get the birth control services. At the evaluation clinic for therapeutic abortion at the Medical College of Virginia many girls show up quite late in pregnancy, thus losing the benefit of a D&C or even of an intraamniotic saline injection. These unfortunate situations should not happen now, and all our efforts aim at preventing them.

We must use all possible communication media to give the boys and girls attending schools, not only at high school level and middle school level, but even for certain pu-

TABLE V  
PLACES WHERE PREGNANT WOMEN CAN GET INFORMATION AND COUNSELLING

<i>Place</i>	<i>Address</i>	<i>Telephone Number</i>
Any Doctor's office		
Any Public Health Clinic		
Family Planning Clinic*	2505 East Broad Street	649-4720, 4460; 649-4336, 4707;
Family Planning Clinic*	2809 North Avenue	649-5481, 5482; 649-5483, 5484;
Virginia League for	2009 Monument Avenue	358-4919
Planned Parenthood		
Family and Children's	221 Governor Street	649-9204
Service of Richmond	1820 Monument Avenue	355-6511

\*Our City of Richmond Family Planning Clinic is a federally funded project (No. 03-H-000,092-03-0), Department of Health, Education and Welfare, Health Service and Mental Health Administration, with one third State matched fund.

A new statute passed in 1972 allows doctors to deliver family planning services to minors without the need for parental consent. We can now say that the teenagers who are engaged in sexual activity and who are motivated to avoid pregnancy should not "get caught" so frequently and so easily. Those who un-

pils at primary school level, more knowledge about sex, contraception and abortion. The sex education should include for boys information about puberty, spermatogenesis, ejaculation during the sexual act. Girls should be informed about menstruation, breasts and hair development, ovulation, conception and abor-

tion. Both boys and girls should be informed about V.D. and their prevention. We should emphasize also some very practical points such as the following:

Condoms are available at every drugstore. They are inexpensive and they prevent V.D. as well as pregnancy. Boys who wish to come to the Family Clinics can get free condoms.

There are pills available for the "morning after" treatment for girls who need it.

Delay of a menstrual period should cause the individual to go to her own doctor or to one of the Family Planning Clinics or call the counselling agencies as soon as possible.

Information and counselling for pregnant teenagers in Richmond can be obtained as listed in Table V. At our Family Planning Clinics, we do have evening clinics for those who don't want to miss school, or who have to work during the daytime.

In addition to the two Family Planning Clinics in Richmond we have three other city clinics where the people can get Family Planning services, at Ninth Street, at Bainbridge Street, and at Broad Rock Road. The Free Fan Clinic operated by a group of residents from the Ob/Gyn Department of M.C.V. can give free Family Planning service with the City Health Department contributing the contraceptive materials. Tours of these facilities could be arranged for school groups to acquaint them with these programs.

Journals and school papers should include articles, or advertisements to let the teenage people have a chance to know what is available.

All this could be done more if the school boards, teachers, principals and PTA members agreed to the need and would initiate themselves these preventive measures.

Sol Gordon, Professor of Child and Family Studies at the Syracuse University in his 22 point recommendation to the Commission on Population Growth and the American Future in 1972, went even further than that, asking that the organized religious groups with progressive, ideological and ethical position on adolescent sexuality should be encouraged to support birth control centers for youth and

disseminate sex information through their own youth sponsored groups.<sup>1</sup>

At the Family Planning Clinics of the City Health Department, we can make every effort to provide the services for those who come and ask for contraception. But we can only serve those who want to come to us. We are already trying to attract the girls and boys who are sexually active to come to us by providing them:

Free pregnancy detection services,  
Rap sessions for teenage boys and girls,  
Special Family Planning Clinics for adolescents.

We have started our free pregnancy detection service since December 1970; we make it quite simple: any girl can, without an appointment, step into our Clinic any time during open hours. She would have to fill out a simple request slip with the name, age, address, date of last menstrual period and previous medication, and she would give a urine specimen and can step out of our clinic within five minutes. We ask her only to come back the next working day for the results, and to stay about one-half hour with us for counselling. Then if she is pregnant our counselling depends on what she would like to do with her pregnancy and if she is not pregnant, we offer our contraceptive advice. By doing so, we can talk to her *freely* about sex and about various ways to avoid pregnancy, because we know that she has already been engaged in some sexual activity.

This free pregnancy detection service allows us to have the surest way to sell it to teenagers who are already sexually active. Table VI shows a number of free pregnancy tests that we have performed during the last two years with some 20 to 40 pregnancy tests performed in a month. We could pick up an increasing number of new patients (up to about 8 patients a month now).

We should increase this service and advertise it, hoping to reach more sexually active unmarrieds and who are not taking any contraceptive measures.



The special Family Planning Clinics for adolescents have attracted teenagers who can sit together, talk the same language, understand each other and feel more free to attend this clinic.

a relative slowing down on the percentage of teenagers during the 2nd semester of 1972, this might reflect the influence of the new clinic located in the northside of the City.

The present available literature shows a high

TABLE VI  
NUMBER OF TESTS AND NUMBER OF NEW PATIENTS AS THE RESULT OF FREE  
PREGNANCY DETECTION SERVICE, DURING THE LAST TWO YEARS

	<i>Total Tests</i>	<i>Positive Tests</i>	<i>Negative Tests</i>	<i>New Patients for Family Planning</i>
1st 6 months 1971	75	44	31	11
2nd 6 months 1971	170	102	68	22
1st 6 months 1972	141	77	64	33
2nd 6 months 1972	190	119	71	49
Total	576	342	234	115

From the following tables we see that these facilities have brought to us more teenagers than before.

Table VII shows the increase in teenagers attending our clinic as new patients.

Table VIII shows comparative study of teenage vs. adult clinic patients as total visits.

rate of failure of contraceptive practice among the teenage girls:

L. B. Johnson noted 55% of spontaneous expulsion of Lippes Loop among adolescents, 5% of expulsion of Majzlin spring (but with higher incidence of uterine bleeding).<sup>16</sup>

TABLE VII

	<i>NEW VISITS</i>			<i>Percentage of Teenage New Visits Over Total New Visits</i>
	<i>Teenage</i>	<i>Adult</i>	<i>Total</i>	
1st 6 months 1971	83	315	398	20.8
2nd 6 months 1971	208	221	429	48.9
1st 6 months 1972	286	342	628	45.5
2nd 6 months 1972	309	514	823	37.5

We see from these tables that the number of teenagers served has increased remarkably

J. L. Rauh, et al., showed a 30% failure rate or rejection rate of birth control pills.<sup>17</sup>

TABLE VIII

	<i>TOTAL VISITS</i>			<i>Percentage of Teenage Over Total Visits</i>
	<i>Teenage</i>	<i>Adult</i>	<i>Total</i>	
1st 6 months 1971	294	1724	2018	14.6
2nd 6 months 1971	629	1711	2340	27
1st 6 months 1972	870	1987	2857	30.4
2nd 6 months 1972	1014	2541	3555	28.5

over the last year and a half. The same is true for the number of teenage visits compared with the total visits. These percentages show

P. A. Ewer, et al., showed that only 30% of patients, 13 to 17 years, continue their birth control pills after 10 to 12 cycles.<sup>18</sup>

A British study by Schofield indicated that initial premarital sex is typically unpremeditated, and without contraception.<sup>19</sup> The young people with sex experience usually know about contraception, but so did the inexperienced ones. It is surprising therefore that even though there was great fear of pregnancy, contraception was infrequently used by those having sexual relations.

At our Family Planning Clinics, we have not yet enough cases to show a significant percentage of drop out among the teenagers contraceptive, but we hope it won't be as high as these published rates. Our sex education program, the change in attitude and social behavior in the past two or three years have, hopefully, had some influence on the motivation of these teenage recipients, since we deal here with a group of youngsters who are mentally normal, who come to us because they understand the problem and want to avoid an unplanned pregnancy. We hope that not many of them will drop out.

If more teenagers come to our Family Planning Clinics, and if the drop out rate is not high, we might expect to curtail the teenage pregnancy rate.

While we cannot reach this ultimate goal yet, we like to let these girls know that if they happen to be involved in sexual activity without any precaution, we still can help them with the "morning after pills", and that if they really "get caught" with an unwanted pregnancy, they should seek for a therapeutic abortion as soon as possible.

Therapeutic abortion is not a desirable method for Family Planning but if an unwanted pregnancy occurs, the teenage girls can resort to therapeutic abortion to solve her problem under the recent Supreme Court ruling.

A multidisciplinary approach toward this social problem of unwed pregnancy seems to be most promising, as have stated Coe and Blum<sup>20</sup> and has been developed in this community utilizing the clinic system as the mechanism.

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### Stroke Victims Often Die of Other Causes

Patients surviving the first few days following a stroke are more likely to die of other causes than from the direct impact of the stroke, says a report from two Chicago physicians in the June 11th issue of the *Journal of the American Medical Association*. These other causes, if recognized early, often can be treated and the long-term survival rate considerably improved.

Meyer Brown, M.D., Ph.D., and Myron Glassenberg, M.D., of Northwestern University Medical School and the department of neurology of Evanston Hospital, studied the records of 200 patients who were admitted to Evanston Hospital with stroke, died and had autopsies. For those surviving as long as seven days, death appeared more frequently due to diseases not related to the stroke, such as pneumonia, blood clots in the lungs and urinary infections.

"Although cerebrovascular disease (stroke) is listed as the third most common cause of death in the United States, there is little infor-

mation about the actual mechanism of death in patients who have suffered an acute, terminal stroke. Most of the literature deals with the prognosis after recovery from a first attack."

In the study, Drs. Brown and Glassenberg compared data from 100 patients who died within seven days after stroke to those who survived more than seven days. Those in the quick death group most often died of brain injuries due to the stroke. Those in the longer surviving group often died of other causes.

"The most important lesson to be learned from our data is that many of the extracranial abnormalities contributing to or causing the death of the person with acute stroke may be preventable or more effectively treated if detected early and dealt with vigorously."

"It should be the goal of every physician to make certain that the stroke patient has every chance to recover from his initial stroke, for his prognosis may be much better than anticipated."

# Proposed School Mental Health Program For Fairfax County, Virginia

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**Many school age children have emotional or learning problems. It is felt that this mental health program has helped these children in an efficient, economical way during the past two years.**

IT IS ESTIMATED that 30% of school-age children have some kind of emotional or learning problem, ranging from mild to severe. These students would benefit from professional intervention. Our present school professionals are providing help to only 1% to 3% (depending on the area of the country) of these students on some level, mostly in what is being called "special education classes".<sup>6</sup> It is obvious that we have a great need for more professional and para-professional help to fill this widening gap. It is also obvious that our present school mental health system has been for the most part ineffective, and we need to adapt a new system that would provide us with adequate mental health care and access to utilize our professional manpower to utmost capacity.

The Public Health Programs have been in operation for the past few decades and have proved to be very effective in combating physical diseases. Let us examine their concept and model of work. They use three preventive levels:<sup>3</sup>

1. Primary prevention: the alerting of the environment to reduce the incidence (i.e.,

number of new cases of an illness occurring per year) and the prevalence of mental illness (i.e., number of cases of active illness existing within a certain time period).<sup>4</sup>

2. Secondary prevention: the provision of services and treatment for early detected cases.<sup>6</sup>

3. Tertiary prevention: to provide services which reduce the permanent or long range disabilities which result from the disease.

Keeping these principles in mind and looking into other school mental health programs in other cities<sup>2</sup>, we attempted to start a modified approach to this difficult task. In the spring of 1970, we got together to discuss a practical and easily administered and financed program. After several meetings, we agreed to start with a program staffed mostly by volunteers.

## Program Design

We started to recruit suitable volunteers. Our criteria were simple but rigid: They were to have "faith" in the program and must have personal experience with children. The program has been in application for two years, and although we kept the main working hypothesis, we changed the means and the methods a great deal. We kept our focus at the early school years, assuming that the problem-students are still fresh then and that our chances of success would thus be better. Furthermore, we requested to work only with the interested teachers who understood our working principles and hypotheses and who agreed to be involved in the program. We also screened the



enrolled children to eliminate the chronically ill ones.

We thought that the key to the program's success will be the availability of the professional staff (psychiatrists, psychologists) to the volunteers. We designed several introductory meetings, some with the teachers, volunteer child-aides, and professional staff, and others with the child-aides and the staff only. These meetings were to give more exposure of the staff to the child-aides and vice versa. During these meetings we had short talks about certain theoretical aspects of child development and of normal and abnormal psychology, which we knew would be of some application to our child-aides. In order to sharpen their observation skills, we arranged for them to be present in classrooms and observe certain teachers and potential referral students, and then at the general meetings to discuss what they saw. We also designed a monthly general session where all the professional staff and the child-aides met in a general "rap session" on different topics. The school principals attended some of these meetings as the teachers' representatives and messengers.

By our second year of work we gained a lot of experience, and many of the rigid rules with which we started were eliminated. For example, we dropped the student-screening procedures, taking every referred student into the program. We also eliminated the introductory courses, emphasized the class observations and group discussions more, and added a continuing educational program and monthly general meetings.

### **Referral System**

We accepted the children only from the volunteer teachers who were the prime source of identifying high risk students. The teacher would refer the child, stating what she saw as the main problem and what changes she would like to see in the child. The principals were requested to obtain parental permission and to collect social and academic data about these students and present it to our staff members for discussion. In the first year we ac-

cepted 33 children out of the 35 referrals. In the second year we accepted all 49 referred students. The most common problems of referral were short attention span, aggressive behavior, withdrawn behavior, and lack or absence of social skills.

### **The Program at Work**

In the fall of 1970 we had recruited 10 volunteers (child-aides), seven women and three men. In the second year we accepted 28 volunteers, five from our first-year trainees and 23 new ones. Seven of these volunteers dropped out for various reasons before the program started. The volunteer child-aides' educational backgrounds varied from a high school diploma to college graduates. Their ages also varied from 26-53. We had 33 students enrolled in the first year program and 49 students in the second year program; four of the latter were from the first year. The other 29 students from the first year apparently demonstrated an accepted level of behavior, and they were not referred to the program again. The child-aides met with the professional staff in groups of three to four on a weekly basis with the full understanding that they were always welcome to call and discuss an urgent matter. During these individual supervisory meetings with the child-aides, the professional staff's main interest was to maintain an easy going and relaxed session. The relationship between the child-aides and the children was the main focus. The child-aides were advised not to structure their sessions and make them as free flowing as possible. On only a few occasions were structured sessions necessary. The child-aides met with the students for at least two short periods (30 minutes) during the week for a minimum of three months. On some of the occasions when specific problems arose, the child-aide met with her students on a daily basis. The majority of the child-aides saw two children, but some saw three or four.

Although there was some overlap between the teacher's goals and the goals of the child-aides, we attempted to separate their tasks. On a few occasions some of the teachers looked to the child-aides as teacher aides and tried to

structure their meetings and what subjects to focus on, such as saying, "Johnny still has problems in his reading." The staff encouraged these aides to discuss the program philosophy again with these teachers and advised them not to take such suggestions as instructions. A student or two desired to be helped in certain areas, such as mathematics, spelling, or grammar, etc., and the child-aides were encouraged to respond to the child's requests. The majority of the meetings were play-oriented.

### Case Illustrations

The following are just a few examples of the typical problems encountered and their outcomes. We have not included a detailed background history or the therapeutic process. (The names used in case illustrations are fictitious.)

*Case 1.* Sharon was a 6 year-old first grader who was referred to our program because of hyperactivity, restlessness, disturbances in the classroom, apathy, and indifference towards schoolwork and teachers in general. Her social history pointed towards a recent radical change in her family structure. The mother married a man who brought with him two children of ages close to Sharon. During the year, Sharon met with her aide on a twice-weekly basis and discussed the majority of the family problems. After a few weeks she quieted down and started to do her classroom work, which was rather a surprise to both her teacher and her aide. Sharon displayed an interest in her classroom and classmates, and her hyperactivity subsided gradually.

*Case 2.* Billy was a 5 year-old kindergarten student who was referred to our program because of extreme negativism, violent temper tantrums, disorganized hostility, such as pounding on the closet doors and walls in anger and frustration. Billy came from a low socio-economic class where both of his parents had to work, and he had to stay with his baby sister most of the day. Billy was hostile and negative to everyone in school including the child-aide who was assigned to him. The child-aide was

consistent and came regularly to their sessions. Gradually Billy started to accept her with a positive attitude. Later on this relaxed attitude expanded to other areas in his life and was reflected in his classroom. At the end of the year, Billy was rather cooperative and responded positively to praise and attention from his teachers.

*Case 3.* Diane was a 6 year-old first grader who was referred to the program because of extreme emotional immaturity and a constant attempt to seek the teacher's attention. She had a poor relationship with her classmates and friends. Diane came from a middle-class family, and she was the elder of two siblings. There was an unusual amount of sibling rivalry that affected Diane negatively. Diane met with her child-aide twice a week, and they talked rather freely and openly. They did many little things and played many games. Diane enjoyed the sessions tremendously and usually displayed a happy outlook when she went back to the class. This attitude continued in the classroom, and her relationships with her teachers and friends improved.

*Case 4.* Lynn was a 6 year-old first grader who was referred to the program because of a short attention span, difficulty in following directions, and poor coordination. She also displayed no interest in her schoolwork or in relating to her peers. She was described as being withdrawn and apathetic. This child, for some reason or another, had not been able to attend kindergarten, and she lacked the experience and vocabulary that is necessary for the first grade. Meeting with her child-aide and working with her on a one-to-one basis was the most helpful thing to get her out of her seclusion. Within a year she was able to catch up with her classmates and move successfully into the stream of the students.

### Discussion

Schools are one of the national institutions with which almost every family has to deal. We have seen the schools as a source of stress, and they trigger many emotional problems. We think that schools could be a health-instru-



ment institution to help troubled children and troubled families to work out some of their difficulties. We have seen that it is possible to change the school into a therapeutic-milieu institution that helps the child to adjust to his environment and eventually to become a happy individual.

It is a fact that we have in our schools a shortage of professionals and para-professionals such as psychiatrists, clinical psychologists, psychiatric social workers, psychometrists, specialized teachers, specialized teacher-aides, etc.; but we believe that applying the Public Health principles to mental health situations could be a prime factor in closing the shortage gap.

Looking at the first level of primary prevention, we see that by the school system standards the principal and teachers could serve as the "psychiatric antennae" for identification of emotionally maladjusted behavior. They are the first to alert the professional and para-professional to the area of danger; thus their ability to differentiate between healthy and pathological methods of coping with stress could be of crucial importance in the success of such a program in the long run. The close contact between mental health workers, on the one hand, and the school personnel, on the other hand, in the repeated conferences, meetings, and clinical case discussions could be the main tools to increase the sensitivity of the school personnel to the troubled child. Eventually these teachers will be able to modify their classroom techniques to suit more diverse students, and will be more flexible in handling more difficult problems. When teachers approach that level of optimum functioning, we expect less student referral to the Mental Health Program and eventually a more suitable atmosphere for learning and emotional health in the classroom. This should be, in our opinion, the main focus of the long-range goal of this project.

On the secondary prevention level of mental health, the child-aide would be in the first echelon, to give help and support to those identified as "problem students". These students will

be received early in their incidence of difficulties, and eventually the prognosis would be quite favorable.

On the tertiary prevention level of mental health, we see our program as less effective, but we might be able to block further deterioration and regression in some of the chronically and severely ill children. It is rather unfortunate that schools use most of their mental manpower to serve this small minority (the very sick), who we feel are the hardest to reach and the least to be benefited.

Looking at the four clinical cases we have outlined above, and examining what happened during the intervention process that changed the pattern of behavior from maladapted during the first year to adapted in the second year, it seems a very difficult task to reach a general conclusion because of the many variables in each case. The child-aide did not interpret any underlying emotional conflict for any of these students. It was pointed<sup>1</sup> out that the mere fact that the teachers recognized and the family accepted that they had a troubled child would lead them to change drastically their expectations of that child and to display more tolerance of his deviances of behavior, eventually leading to less stressful situations for the child and reflecting in a better adjustment of the child to his environment. On the other hand, it has been our observation that the emotional tie established between the child-aide and her "troubled child" and the meaningful exchange of cathartic material in their sessions have been the most important factors. It is possible that these three factors and many others may have operated in the process of change in every child, and the personal emphasis for any particular child may have been on any one of these.

It has been reported by many authorities<sup>2, 5</sup> that a troubled child "Did Not Grow Out Of It", but in fact this led to more troubled adolescents and underachieving students. In spite of short follow-up in our cases, we feel confident that we have changed the tide in the majority of the children with whom we worked, and that they have displayed a more acceptable

behavior during and after participation in the program than they did during the previous years. We are not trying to minimize the fact that the new teachers whom the children have the year after participation differ from the first teachers and that eventually their standards of acceptable and nonacceptable types of behavior are different. But teachers reported an acceptable classroom behavior in 87% of the cases which would give us a rather clear, explicit message of the success of this program. We do not claim that the program has cured the children of great emotional difficulty, but we are strongly convinced that it has at least prevented further deterioration in their behavior.

### **Financial Analysis and Justification of Cost\***

For the past two years, the program described above has been carried out at practically no cost to the Fairfax County School System. It has run with borrowed professional staff and with volunteers. We are convinced that it is the most practical and efficient way of using the utmost professional and para-professional staff time. Our collected data during the two years indicates that teachers who worked with us referred two to three students per class (close to 10% of the class populations). To finance this program, the county would need \$1.50 per student per year. The outcome of this type of program is rather difficult to evaluate and measure in dollar-and-cents scale. We could not evaluate the agony of a family with a "troubled child" and the comfort for that child and his family when he has become better adapted to his classroom and at home. It is clear to us that the money invested in the Mental Health Prevention Program is a high-yield investment. It cost Fairfax County to maintain a student in a regular class about \$730 per year for elementary school and \$950 per year in the high school. To keep a similar student in

a special education class costs the county about \$3,000 per year. If we assume that each worker would be successful in diverting only one student from drifting into the special education classes (theoretically a half-time child-aide could treat up to 15 students per year and even in the training stages of our pilot program, the success rate was close to 90%), this would be enough to pay for a child-aide's expenses and training for that year. But if we were able to keep the student in the special education classes and to prevent further deterioration in his social adjustment that would necessitate residential treatment facilities, there would be even greater saving. When we realized that those children "don't grow out of it" and when we examined those frighteningly high national figures for the cost of unchecked emotional difficulties, we acquire a clear idea of the value of such a program. There are over 32 million young people in this country between the ages of 10 and 17. One million or about 3% will be referred *officially* to the domestic court for some reason or another, costing the country \$981 million per year: 45% will be referred to some type of treatment program, 50% will be released to counseling and probational facilities, and 5% will have "unusual dispositions." It is our belief that the 3% who reach the court are the 3% that our classroom teacher referred to us. We are convinced that we can change this percentage by dealing with the problem at the early school years.

### **Summary**

We have briefly described a school mental health project that can easily be administered and carried out by school psychologist. We emphasize one effect of this program would be to move the school psychologist from the evaluation and recommendation level, which is the end of the line, to the treatment and helping level. We are convinced that the application of this program in the schools will reduce the formal referral to a minimum and that eventually the school psychologist would have more time to devote to treatment and supervision.

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\*A detailed report of the financial cost and feasibility is available upon request.



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## Physicians Urged to Teach Patients About Their Health

Physicians are urged to become better teachers of their patients in an article in the June issue of *Archives of Dermatology*, a publication of the American Medical Association.

"Do you deal with your patient as though he were a passive recipient of your actions, as a veterinarian cares for his subjects? Or do you expect the patient to have some role to play in the activities that will help him make the favorable progress you desire for him?" Richard M. Caplan, M.D., of the University of Iowa College of Medicine at Iowa City, asks of his physician colleagues.

As an example, the doctor may note that the patient is scratching and squeezing acne pimples. "Do you tell the patient to stop that behavior, simply counting on your prestige and authority position to cause the patient to stop? Or do you point out that such action leads to injuries and scabs that are more unsightly, slower to heal, and more likely to leave scars, thus allowing the informed insight to help achieve the behavior desired?"

Dr. Caplan points out that doctors often see

similar types of problems in patients day after day. The physicians tend to become hurried and cursory in giving counsel. To counteract this tendency, he suggests that doctors develop teaching aids that will help them communicate properly with their patients.

Printed instruction sheets, written by the doctor in his own style, are helpful in informing patients of general facts about their condition. Audio tapes, in which the doctor talks to the patient about his health problem, are another recommended tool. Drawings, photographs, slides and other illustrated presentations are useful, as are the many educational leaflets and brochures available from the American Medical Association and many other scientific societies. Group sessions sometimes may be helpful in teaching patients how to cope with chronic, long-term health problems.

Use of these teaching aids will not depersonalize health care, and will not replace the physician. They will assist the physician in doing a better job of making certain that his patient is fully educated as to his health problem.

# Dr. LeMat – Arms Maker

ROBERT I. HOWARD

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**T**HERE IS NO STORY more inspiring than that of the Confederate fighting man and the cause which kept him marching for four long years—always seeking the last great victory that somehow never came. No less inspiring is the story of the arms he used to carry the fields that reached from Virginia's fertile valleys to the Pennsylvania hills and back again. These were no ordinary arms such as those forged and shaped in the well equipped and long established armories of the North. These were arms conceived in the minds of men with a purpose and produced under conditions and handicaps which made them even more remarkable.

Nearly one hundred years have passed since these weapons spoke their defiance and the shadows of time have blurred many of the names and places which figured prominently in their stories. Hidden though they may be

in the dusty pages of history, there can be found the names of a surprising group of men who, in one way or another, contributed to the arming of the Confederate soldier. These men were physicians.

Perhaps the most colorful of this group was a Creole physician of New Orleans with the equally colorful name of Jean Alexander Francois LeMat. This French born physician was the inventor of the famed "grapeshot" revolver which bears his name.

There is no doubt but that Dr. LeMat's creation was one of the most unusual and formidable revolvers ever fashioned. Deadly in appearance as well as effect, it featured a revolving cylinder and upper barrel of approximately .42 caliber, and an under barrel of approximately .60 caliber—referred to as the grapeshot barrel. The cylinder was unique in that it contained nine chambers—providing tremendous fire power. This, of course, was just what many of the South's daring cavalry leaders were looking for—a weapon particularly suited to the swift striking, hard hitting tactics which characterized that branch of the service.

Dr. LeMat, or Colonel as he sometimes liked to be called, was a close friend and one time partner of General Pierre G. T. Beauregard and the relationship stood him in good stead when the war clouds gathered in 1861. The good doctor negotiated a contract with the Confederate government and set about to furnish his revolver to both the Confederate army and navy.

Despite considerable speculation on the subject, it is extremely doubtful that any of Dr. LeMat's revolvers were manufactured on this side of the Atlantic. Such manufacture was surely contemplated by the firm of Cook and Brother of New Orleans, but the operation apparently never got under way.

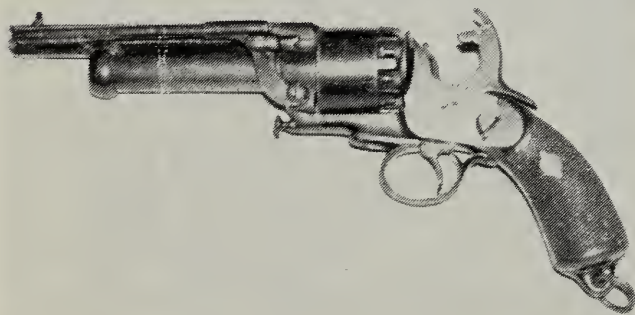


Fig. 1

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*Editor's Note:* Some years ago, your editors attempted to start a Department on Hobbies of our members. To start this off, Robert I. Howard, executive vice-president of The Medical Society of Virginia, contributed this article on Dr. LeMat—Arms Maker. We have been waiting for other articles to use in the Department but as none have been received, we feel it only right to use the one contribution with the hope that others may follow.



Dr. LeMat, in addition to being a gifted physician and mechanical marvel, was a realist and it did not take him long to recognize the difficulties which must be met and overcome before any appreciative number of revolvers could be produced in the South. Iron and steel were hard to come by and the labor situation left much to be desired. Then, too, the constant pressure being exerted by Northern forces often made it necessary for arms manufacturers to dismantle their machinery and move to a more secure location. As a matter of fact, the Dickson-Nelson Company, manufacturers of first class rifles and carbines, was forced to move three times—starting in Shalanoosa, Alabama, and winding up at Dawson, Georgia. It was for such reasons that the far-sighted LeMat decided to set up his operation in Paris.

The flight of the good doctor to France was an experience in itself and represented another chapter in the story book life of this most unusual gentleman. After running the blockade, he sailed for Europe on the Trent, an English mail boat. The ship was stopped by a federal naval vessel and a number of prisoners taken—including the well known Mason and Slidell. Somehow, the wily Dr. LeMat escaped capture and was able to complete his journey without further interference.

Once in Paris, Dr. LeMat associated himself with the firm of C. Girard and Son and set about to produce the arms so badly needed by the embattled South.

There is available considerable proof that, even in Paris, the LeMat operation had its troubles. The Confederate Navy Department, in one instance, became upset when a number of revolvers could not pass inspection. Much of the difficulty apparently was caused by the hammers which, in some cases, were made of too soft metal. The under barrel was fired by a special folding hammer tip which seemed to break too easily and this caused much concern. It was reported also that the two barrels were not always properly aligned and that in some instances the hammers would not strike fairly.

The Confederate War Department, on the

other hand, appears to have met with better success in obtaining LeMats, and its field manual for ordnance officers, published in 1862, refers to the grapeshot pistol manufactured by M. LeMat of Paris.

Although some three thousand of Dr. LeMat's revolvers were manufactured, it is doubtful that very many actually reached the men who needed them most, a tough federal blockade presenting quite a problem. It would be interesting to know how many of the guns lie on the ocean floor off the Carolina Coast. Records kept by an ordnance officer at Wilmington, North Carolina, do show, however, that some LeMats arrived there in 1863 and 1864. The steamers Lynx and Pevensey were credited with landing a number of cases of the big handguns.

Official records reveal that seamen from the C. S. S. Patrick Henry, armed with LeMats, burned the steamship Alleganian in November, 1862. When the Atlanta, a Confederate ironclad, was taken in June, 1863, a number of LeMats were among the arms captured.

Strangely enough, a Richmond arms firm known as Kent, Paine and Company advertised LeMat revolvers for sale in December, 1862. Could it be that these revolvers were part of a rejected lot?

The popularity of the LeMat is evidenced by the number of high ranking Confederate officers who used them, including Generals J.E.B. Stuart, Beauregard and Anderson. Perhaps the most famous is that which was carried by Stuart, and which can be seen in the Stuart display at Richmond's Confederate Museum.

The postwar years found Dr. LeMat still in the firearms business and a number of pinfire revolvers can yet be found bearing his name. There is no information readily available concerning the Doctor's medical practice, although one receives the impression that it was somewhat limited.

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# Cancer Trends . . . .

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## Paraneoplastic Syndromes

### A Clinically Relevant Concept in Cancer

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The term paraneoplastic refers to the phenomena observed in cancer which are not explained by the mere physical presence of the tumor mass. It is easy to understand how a large lung cancer may occlude a bronchus, causing atelectasis and pneumonia in that portion of a lung, but it is hard to explain why a patient with a 2 cm. renal cell carcinoma may develop anemia, fever, hypercalcemia and severe weight loss.

The concept of paraneoplastic syndromes is an attempt to provide a unified explanation of the protean manifestations of cancer. It should be pointed out that this is still a theory but that many parts of it now appear to be confirmed.

#### Background

To understand this concept, we must begin with a review of some basic fundamentals of cellular genetics. First, it must be understood that all the cells in a given human being have the same chromosomal complement. That is, a brain cell has exactly the same genetic makeup as an intestinal cell. The difference is that in the brain cell all the genetic functions are

suppressed except those necessary for the normal metabolic functioning of a brain cell. Similarly in the intestinal cell all the genes are inactive except those related to the specific tasks of that tissue. It has been estimated that only 10% of the total genes are permitted to function in a given cell.<sup>13</sup> This concept has been termed "selective de-repression". Obviously this process, which is vital for the normal differentiation of tissue, must be very selective in order for a given cell to make the thousands of specific molecules necessary for its own existence, self-repair, and its special functions. It is the careful control of what genes are expressed and what genes are suppressed that the cancer cell goes awry. Perhaps the most common "error" in all cancer cells is the failure to suppress the rate of cellular multiplication. This is manifested by the rapid growth of a malignancy. Cancer cells also lose their ability to recognize their appropriate location and invade surrounding tissues. (The migration of normal cells is inhibited by contact with and recognition of cells of a similar type, thus maintaining the continuity of a tissue). Another common defect is the loss of the intricate control mechanisms and feedback systems governing the cell's output of its normal products.

The rapid growth and invasion of a neoplasm are relatively easy to observe, but most of the errors in de-repression are much more

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Sponsored by the Professional Education Committee, Virginia Division, American Cancer Society.



difficult to detect, because they result in the production of only very small quantities of an abnormal or inappropriate molecule. However, certain of these molecules do have clinically observable effects even when present in such small quantities; they are responsible for the unusual systemic symptoms associated with cancer.

To reiterate, the paraneoplastic syndromes may be defined as the phenomena associated with a malignancy which are not due to the physical presence of the tumor mass but to the production by the tumor of an abnormal or inappropriate molecule.

### Classification

The detectable molecules produced by tumors fall into several functional categories: ectopic hormones, other physiologically active substances, antigens, and toxins. The recognized paraneoplastic syndromes due to these molecules are listed below;<sup>2,12</sup> their number is constantly being expanded.

#### A. Ectopic Hormones

It was the production of hormones by tumors that first called attention to these syndromes. Brown in 1928<sup>3</sup> described what was probably the first such case, a patient with oat-cell carcinoma of the lung and classic signs and symptoms of Cushing's syndrome, though the relationship between the two was not appreciated. It was not until 1941 while reporting a patient with renal cell carcinoma, hypercalcemia, and normal parathyroids that Albright<sup>1</sup> suggested that the tumor might be making parathyroid hormone. In 1956 the first convincing evidence was proved when Conner et al.<sup>4</sup> and Plimpton et al.<sup>11</sup> presented several cases of hypercalcemia in cancers without bony metastasis in which the calcium returned to normal after removal of the tumor. Subsequently, the extremely sensitive technique of radioimmunoassay has confirmed the presence of high quantities of substances that are immunologically very similar to known hormones, in the tumor tissue and serum of patients with the related syndromes. Following

are the ectopic hormone syndromes described to date:

#### 1. Hypercalcemia due to parathyroid hormone (PTH) production.

There are, of course, many possible causes of elevated calcium levels; fairly strict criteria<sup>9,10</sup> must be met before this diagnosis can be made. An example of such a problem is given in the hypothetical case which appears later in this article; the approach to the other paraneoplastic syndromes is similar. The tumors most frequently found to be secreting PTH are squamous cell, with lung being by far the most common of these; renal cell, ovarian, and pancreatic carcinomas and uterine leiomyosarcomas are other tumors causing this syndrome.

#### 2. Cushing's syndrome due to ACTH

The three most common tumors associated with this are bronchogenic carcinoma, malignant thymoma, and pancreatic carcinoma. Because of the fairly rapid progression of these cancers, the full-blown Cushing's syndrome often does not have time to develop; the striae and "buffalo hump" and hirsutism are present to varying extents, but hypertension, glycosuria, and hypokalemic alkalosis dominate the picture.

#### 3. Hyponatremia due to antidiuretic hormone (ADH)

Here again, bronchogenic carcinoma is by far the most common culprit. The excessive amounts of ADH cause water retention and resulting dilutional hyponatremia, and lead to nausea, vomiting, confusion, weakness, and even convulsions if unchecked.

#### 4. Hyperthyroidism due to thyroid-stimulating hormone (TSH)

This syndrome is produced by a wide variety of cancers, with no one type predominating. There may be an unusually high association with trophoblastic tumors. Tachycardia, nervousness, and abnormal thyroid function tests are found, but the eye signs are usually absent.

#### 5. Precocious puberty or gynecomastia due to gonadotropin

In young boys, hepatomas and hepatoblastomas have been shown to secrete gonadotropin, resulting in premature genital and/or skeletal growth. In adult males, cancers of the lung and adrenal cortex cause gynecomastia when they produce gonadotropin.

6. Polycythemia due to erythropoietin

Renal cell carcinomas and cerebellar hemangiomas most frequently synthesize erythropoietin; pheochromocytomas, uterine fibroids, and hepatomas have also been reported. The high hematocrit in these patients stands out in contrast to the anemia often seen in neoplastic disease. Normal blood gases will confirm that hypoxia is not the stimulus for erythropoietin release.

7. Hypoglycemia due to production of an insulin-like substance.

Most of these tumors are mesenchymal in origin: fibrosarcoma, mesothelioma, neurofibroma, leiomyosarcoma; hepatic and adrenal carcinomas are also implicated. These patients' complaints are the classic ones of hypoglycemia, with nervousness, confusion which may progress to coma; the symptoms are rapidly relieved by intravenous glucose.

8. Atypical carcinoid syndrome

This differs from the usual carcinoid in three ways: (a) pancreatic, gastric, lung, and thyroid carcinomas are involved rather than small intestine and appendiceal tumors; (b) 5-hydroxytryptophan (5-HTP) is the main product rather than serotonin (5-HT); and (c) these patients tend to have a patchy vivid red flush instead of a cyanotic flush in association with diarrhea, bronchospasm, hepatomegaly, and endocardial fibrosis.

9. Zollinger-Ellison syndrome due to gastrin

This well-known entity consists of severe atypical peptic ulceration, gastric hyperacidity, chronic and often intractable diarrhea with hypokalemia, and is due to production of gastrin by non-beta islet cell tumors of the pancreas. One-fourth of these patients also have other endocrine adenomas.

B. *Paraneoplastic Syndromes Due to Other Physiologically Active Molecules*

1. Myasthenic syndrome due to a curare-like substance

This has only been observed in lung cancer. There are several ways in which the myasthenic syndrome differs from myasthenia gravis,<sup>2</sup> among which are infrequent oculo-bulbar involvement, proximal muscle weakness, decreased tendon reflexes, and poor response to neostigmine.

2. Venous thrombosis due to an antihemophilic globulin (AHG)-like factor

The venous thrombosis of malignancy is characteristically migratory or multifocal. This unusual picture may point to lung cancer in the male, reproductive tract cancer in the female, or pancreatic or breast neoplasm.

3. Bleeding diathesis due to fibrinolysins or fibrinogenolysin

Patients with bronchogenic or prostatic malignancies may occasionally demonstrate diffuse or localized hemorrhagic tendencies; fibrinolysins or fibrinogenolysins have been isolated from tumor extracts in such patients.

C. *Syndromes Due to Antigen Production*

1. Neurologic disorders: Subacute cortical cerebellar degeneration and peripheral neuropathies.

The exact etiology of these disorders when associated with a malignancy is not certain. It appears that some tumors, notably ovary, lung, stomach, and breast may secrete a substance which is antigenically similar to neural tissue, thus eliciting an auto-immune response. Specific antibodies against brain and peripheral nerve tissue have been demonstrated in the sera of these patients.

2. Dermatologic Disorders: Acanthosis nigricans and dermatomyositis.

Acanthosis nigricans, a patchy hyperpigmented verrucose skin lesion, has long been known to warn of malignancy; 90% are associated with intra-abdominal adenocarcinoma, usually gastric. Fifteen percent with derma-



tomyositis have a cancer, usually of the stomach, breast, lung, ovary, or lymph nodes. This fraction increases to 50% if one looks at patients over forty. These phenomena are thought to represent hypersensitivity reactions, though no antibody to the patients' skin has been identified.

### 3. Vascular: Marantic Endocarditis

This is a vegetative, sterile lesion of the heart valves which may embolize and present as a stroke, coronary occlusion, etc. Most of the associated tumors are mucin-producing adenocarcinomas of the stomach, lung, or pancreas.

### 4. Diagnostic Antigens: Carcinoembryonic antigens (CEA) and alpha-fetoprotein (AFP)

These glycoprotein antigens do not produce clinical syndromes but are of diagnostic significance, as their presence in the blood is abnormal after the neonatal period. CEA was originally thought to be a specific product of colon carcinomas but has been found to be associated with other cancers in addition to the gastro-intestinal tract. AFP is usually diagnostic of primary liver tumors or of liver metastasis of gastro-intestinal tumors.<sup>8</sup> Such tumor-specific antigens open the possibility of immunologic attack on cancer, as discussed previously in this journal.<sup>6</sup>

## D. Syndromes Due to Toxins

### 1. Cachexia

Weight loss is a long-recognized concomitant of most cancers. It is felt that the mechanism for this may be two-fold: (a) secretion of a central nervous system toxin which causes anorexia, and (b) elaboration of a substance which blocks some of the enzyme reactions necessary for digestion and assimilation of food. The latter seems likely since weight loss occurs even when patients receive a more than adequate caloric intake.

### 2. Anemia

This frequently-observed problem does not seem to be related to dietary inadequacy or to consumption of factors necessary for red cell production by the tumor. There may be several substances secreted by tumors which are

toxic to the bone marrow. One possible mechanism is the production of a defective erythropoietin molecule, called anerythropoietin, which blocks the bone marrow recipient sites, preventing stimulation by normal erythropoietin.

### 3. Fever

Two mechanisms are postulated as possible explanations of carcinomatous fever: (a) the elaboration of a pyrogenic toxin by the tumor, and (b) the inflammatory response to the molecular contents of tumor cells, released into the circulation because of the high spontaneous death rate of defective daughter cells.<sup>7</sup>

## Treatment

The first step in initiating proper therapy is verifying the diagnosis. Much specific information as to the characterization of the individual syndromes may be found in the excellent recent monograph by Bhattacharya and Sealy.<sup>2</sup> Concomitantly one must identify the site of the primary tumor and the location of any metastases.

The most effective treatment of the paraneoplastic syndrome is, logically, the removal or destruction of all neoplastic tissue. Even if cure is not possible, one should consider surgical excision and/or irradiation of the greatest amount of tumor tissue feasible, in hopes of diminishing tumor production of the hormone or toxin and giving the patient a period of decreased symptomatology. If he is beyond even this stage, symptomatic relief may be offered by appropriate pharmacological agents, a partial list of which follows:<sup>7</sup>

Hyperadrenocorticism:	Op'DDD, Methapyropone, Aminoglutethimide
Neuropathy:	Prednisone 30mg. daily
Hypoglycemia:	Streptozotocin, Diazoxide
Cachexia:	Depotestosterone 600mg. weekly, I.M.
Hypercalcemia:	Mithramycin 25mcg. I.V. daily X 2-3 days
Polycythemia:	Phlebotomy, Estrogens
Fibrinolysis:	Prednisone 30mg. daily

## Hypothetical Case

The following hypothetical case illustrates the clinical diagnosis of a paraneoplastic syndrome and its implications for management of the patient.

A patient comes to his physician complaining of loss of appetite, weakness, and easy fatiguing and has been bothered by constipation. He appears depressed, and so support and symptomatic relief are offered. After a week or two, it is evident that his constipation is no better, and he reports occasional nausea. Laboratory tests reveal a moderate anemia. The patient is persistent in his complaints, and it is felt that hospitalization for a thorough evaluation is in order. A routine admission 12-channel auto-analyzer report shows a serum calcium of 15 mg% and a phosphate of 2.0. Because of the gastro-intestinal symptoms, a barium enema and upper GI series are obtained but are normal. A routine chest x-ray reveals a suspicious mass in the right lung.

With the initial data in hand, the physician stops to analyze the situation. The possibility of a primary or metastatic cancer in the lung is clear, but what of the hypercalcemia?

The differential diagnosis of hypercalcemia contains many possibilities, but several of these can be ruled out by history (thiazide usage, milk-alkali syndrome, hypervitaminosis D, acute bone atrophy secondary to immobilization). Most of the others can be eliminated by standard laboratory and/or radiologic evaluations:

**Myeloma:** Radiographic bone survey, plasma electrophoresis, urine for Bence-Jones protein.

**Sarcoidosis:** Chest x-ray, plasma electrophoresis (to rule out an increased beta-globulin fraction).

**Leukemia:** Blood smear and bone marrow if necessary.

**Thyroid disorders:** Thyroid function tests.

**"Secondary" or "Tertiary" hyperparathyroidism:** Serum phosphate, BUN, creatinine.

**Addisonian crisis:** Serum electrolytes and cortisol levels if necessary.

**Paget's disease:** Radiologic bone survey.

These other less likely possibilities having been ruled out, the physician is left with the three most common causes of hypercalcemia: malignancy with bony metastases, malignancy without metastases and primary hyperparathyroidism.

The barium enema, upper GI series, and IVP have failed to reveal any other primary cancer, and the radiologic bone survey did not show any bony metastases. Knowing that 70% of all lung cancer is squamous cell, and that squamous cell is the most common type of carcinoma to produce PTH, the most logical explanation of this patient's total picture is that he has a primary lung cancer that is making ectopic parathyroid hormone, hence causing his hypercalcemia.

How does an appreciation of the existence of a paraneoplastic syndrome help in the care of this patient?

1. It may save the patient an unnecessary neck exploration in search of a presumed hyperactive parathyroid gland.

2. If the carcinoma of the lung were resected, the hypercalcemia and its symptoms should disappear. Return of these symptoms may herald recurrence of the cancer or unsuspected metastasis, and management must be altered accordingly.

3. If, as is all too frequently the case, this patient's lung cancer is too widespread to be curable, the physician should still push for aggressive radiation therapy to the primary and any known large metastases. This may give the patient one to several months of symptom-free existence by halting the tumor's production of PTH. The presenting symptoms of anorexia, nausea, weakness, and constipation were due to the hypercalcemia, not simply to the presence of a mass in the lung.

4. If and when the symptoms do finally recur and the patient appears terminal, he can be made as comfortable as possible by con-



trolling the hypercalcemia with copious intravenous saline, oral or intravenous phosphate, or the judicious use of mithramycin.

### Summary

The paraneoplastic syndromes offer insight into the nature of the malignant cell and may explain the bizarre systemic effects of cancer. These syndromes often precede the discovery of the tumor and may make possible earlier identification and ablation of the tumor while it is still curable. Even when its appearance is late in the course of a cancer, recognition of the syndrome may permit significant symptomatic relief. Finally, the detection of tumor-specific antigens offers hope for the future in terms of earlier diagnosis and possibly specific immunotherapy.

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### COMMENT

We are particularly pleased to present this paper written by a member of the surgical house staff who was stimulated by one of his patients to research this problem. This review is the result of his inquiring mind and persistent labors.

As has been pointed out by the author these manifestations may, on infrequent occasions, be the initial indication of a cancer that is potentially curable. If the patient is beyond cure early recognition may lead to more effective palliative treatment. In other patients these syndromes may be the first evidence of recurrence of cancer. Furthermore, the paraneoplastic syndromes present intriguing bits of evidence that help to explain the behavior of certain cancers.

THE EDITORS

# **Medicare—Part B . . . .**

## **Prohibition Against Reassignment of Claims**

CURTIS J. KELLY, JD

The 1972 Medicare Amendments (P.L. 92-603) now prohibit Part B payments on assigned claims to be made in the name of any entity other than the name of the physician or other person who provided the services, except under the following circumstances:

1. Payment may be made to an employer to whom the physician is required to turn over fees for such services as a condition of employment; or
2. Payment may be made to an inpatient facility in which services were provided if there is a written contractual arrangement between the facility and the physician furnishing the service under which the facility will bill and receive payment for services rendered by the physician to patients (inpatients and/or outpatients) in the facility.
3. Payment may be made to a foundation, association, or similar organization which furnishes health care through an organized health care delivery system (i.e., a clinic or group practice prepayment plan) if there is a written contractual agreement between the organization and the person furnishing the services under which the organization will bill and receive payments for the services.

In recent months The Travelers Medicare Claim Department has solicited information from physician groups concerning the prohibition against reassignment of claims. Approximately 125 groups either do not continue to qualify or have failed to respond to the questionnaire. These 125 groups have been notified that on assigned claims Medicare checks must be issued to the physician who personally rendered the service. This will require that a

separate SSA 1490 be prepared for each physician's services (rather than a single SSA 1490 covering services of all physicians in a group).

### **Multiple Surgical Procedures**

When multiple or bilateral surgical procedures, which add significant time or complexity to patient care, are performed at the same operative session, the value of the major procedure plus 50% of the value of the lesser procedure(s) will constitute the total value for reimbursement purposes.

When the adjunct procedure is performed as incidental to the major procedure, and is performed through the same incision, the total value for the multiple procedures will be that of the major procedure only.

### **Early Issuance of Health Insurance Cards (Red, White and Blue Medicare Cards)**

Because of a change in enrollment procedures, the Bureau of Health Insurance has asked intermediaries and carriers to remind providers, physicians and suppliers to check effective dates on health insurance cards that are presented by Medicare beneficiaries.

Before the automatic enrollment provision in the recent Social Security Amendments, health insurance cards were issued to beneficiaries no more than a few weeks before the effective date of their Medicare coverage so that the presentation of a health insurance card prior to entitlement rarely occurred. The new automatic enrollment procedure requires earlier mailings in order that the small percentage of beneficiaries who may not want medical insurance can have sufficient time to decline this coverage before the date it would other-



wise go into effect. As a result most beneficiaries, whose coverage began July 1, 1973, or later, will now be receiving their health insurance cards in the third month before the month that their Medicare coverage starts.

In addition, health insurance cards issued to

beneficiaries under 65 whose Medicare entitlement is based on disability or chronic renal disease will be the same as those issued to beneficiaries 65 and over, and will not contain any distinguishing feature identifying the basis for Medicare entitlement.

### **Clinical Center Study of Patients with Malignant Melanoma**

The cooperation of physicians is requested in the referral of patients with malignant melanoma for studies being conducted jointly by the National Cancer Institute's Immunology, Surgery, and Medicine Branches, at the Clinical Center, National Institutes of Health, Bethesda, Maryland.

The purpose of this study is to evaluate the effects of chemotherapy and immunotherapy in patients with malignant melanoma. Needed are patients with Stage III disease (i.e., clinical evidence for systemic metastasis), and Stage II disease (i.e., clinical evidence for regional draining lymph node metastasis).

Patients with Stage III disease must be 70 years of age or younger, must not have received prior chemotherapy within the preceding 2 months, must not have received prior radiation therapy, and must not have demonstrable CNS metastasis.

Patients with Stage II disease must meet a number of rigid staging criteria. These patients must have had a nodular type cutaneous primary lesion with histologic level 4 or 5 invasion. In addition, patients over 70 years old, who have received chemotherapy within the prior 2 months, and who have received radiation therapy, are not eligible for this study.

Physicians interested in having their patients considered for admission to these studies may write or telephone:

Richard I. Fisher, M.D., Immunology Branch, National Cancer Institute, National Institutes of Health, Building 10, Room 4B17, Bethesda, Maryland 20014, Telephone: (301) 496-2455; or William D. Terry, M.D., Acting Associate Director for Immunology, Division of Cancer Biology and Diagnosis, National Cancer Institute, Building 10, Room 4B17, Bethesda, Maryland 20014, Telephone: (301) 496-5461.

## **Miscellaneous . . . .**

### **Disability Insurance Under Social Security**

Whenever a physician is asked to furnish a medical report in connection with a patient's claim for social security disability benefits, it's a reminder that social security is not just for the retired—it also provides important financial help for people who cannot work because of a serious illness or injury. Currently, over three million men, women and children receive social security disability checks every month because someone in the family—usually the breadwinner—is disabled. Their payments total almost five billion dollars a year. In addition, more than 76 million working men and women are insured for disability benefits as a result of their earnings—wages or self-employment—under social security. Beginning July 1, 1973, full Medicare protection has been extended to persons under age 65 who for at least 24 consecutive months have been receiving monthly social security benefits because they are disabled.

A person under 65 can receive monthly disability benefits if he has a physical or mental impairment severe enough to prevent him from doing any substantial gainful work for a year or longer. Benefit amounts based upon a person's earnings under social security range from \$84.50 to \$345.50 a month for the disabled worker alone, and the maximum monthly benefit for a disabled worker with a family is \$620.40.

#### **From a Small Beginning**

The original Social Security Act of 1935 provided benefits only for the retired worker. It was not until 1954 when the disability "freeze" provision was added that the law gave some protection to the disabled worker. Under the freeze, the years when a worker earned little or nothing because of disability were not counted against him later in deciding if he was eligible for retirement benefits, or in figuring

his retirement benefit amount. To be eligible for the freeze, the worker had to have a disability that was expected to be of "long-continued and indefinite" duration.

Two years later, monthly cash benefits were provided for disabled workers aged 50 to 64, and also for the disabled adult sons and daughters of retired or deceased workers if the son or daughter had been continuously disabled since childhood.

Over the years, the program has been further improved. The minimum age limit of 50 for payment of benefits to disabled workers was eliminated; "long-continued and indefinite" duration was changed so that an insured worker could be eligible if his disability had lasted or could be expected to last for at least 12 months; fewer years of covered employment were required for a young worker to be insured for disability; and benefits were provided for disabled widows (between ages 50 and 60) of covered wage earners. The latest change is, of course, Medicare protection for disabled persons under 65.

#### **Who Can Get Benefits?**

Social security disability benefits can now be paid to:

- \* *A disabled worker* under 65 and his family, if he has worked under social security for a certain length of time, ordinarily 5 of the 10 years preceding the onset of disability. (Special provisions apply to workers disabled by blindness allowing them to qualify with even less work under the program.) For the worker who becomes disabled before he reaches 31, the work requirement ranges down with age to as little as one and a half years.
- \* *A person continuously disabled since childhood* (before age 22), if one of his par-



ents (in some cases a grandparent) who is covered under social security retires, becomes disabled, or dies. The mother of the disabled son or daughter may also receive monthly benefits as long as she has the child in her care.

- \* *A disabled widow 50 or over*, if her late husband was covered under social security, and if she meets the specified level of medical severity. This also applies to disabled dependent widowers and certain disabled surviving divorced wives.

### Reporting Medical Evidence

When a patient applies for benefits, he is asked to submit medical evidence to support his claim. This evidence usually consists of data from the records of his treating physician, clinic or other medical source. Our experience with the disability program in Virginia indicates that in about three out of five cases no further medical development is needed because the treating source already has enough information on record to provide a good picture of the applicant's condition and how it limits his ability to work.

This information may be requested on the patient's behalf by a social security office—or, more often, by the Disability Determination Division. This is the full name of the agency in Virginia that evaluates social security disability claims for Virginia residents. Like other State agencies throughout the country that work with Social Security in the disability insurance program, the Disability Determination Division in Virginia includes both physicians and trained disability examiners on its professional staff. They form a balanced team of medical and non-medical people who can handle anything from a strictly medical issue to a complete assessment of the vocational factors which bear on the disability decision.

With the assistance of our staff of reviewing physicians, we endeavor to make these requests for medical information relate as directly as possible to the condition which the claimant states is the cause of his disability. The goal of the individually tailored request is

to ease the medical reporting burden of the busy physician or clinic, without jeopardizing the claimant's right to have his case decided on the basis of all relevant information available.

The evaluating physician here in the Disability Determination Division never sees the patient. He depends heavily on information supplied by the physician or clinic to assess the severity of the applicant's impairment, its expected duration and the extent of his residual functional capacity. The disability decision, therefore, rests largely on the quality of the medical evidence obtained. A detailed report from the treating source, including objective findings and laboratory procedures, will usually be sufficient for us to evaluate the claim and make a decision.

For example, if the patient experienced a myocardial infarction, we would look to the report submitted by the treating source for such information as date of occurrence, place and duration of the hospitalization, as well as results of x-rays, electrocardiograms, and other laboratory studies.

Serial ECG should, whenever possible, accompany the report so that our staff of physicians may also have the benefit of reviewing this essential documentation. Equally important is the medical history, including onset of chest discomfort, relationship to effort, intensity, location, radiation, regularity, and to what extent relief is obtained by rest or medication.

If a report does not contain all the findings necessary to make a proper decision, one of our reviewing physicians may recontact the medical source. However, the additional time required may delay the patient's claim and can add up to a significant additional program expense.

You can help speed the decision of your patient's claim by reporting all relevant data about his medical condition as promptly as possible.

Establishing the onset date of disability—often a key factor in determining the beginning date and amount of the claimant's bene-

fits—is frequently difficult. Therefore, it is extremely helpful if the reporting physician includes the date of each important fact or finding. To save time, he may enclose photocopies of pertinent sections of the patient's chart or of hospital or consultant's reports.

### **Criteria for Evaluating Disability**

In making disability determinations, our agency uses medical criteria developed by the Social Security Administration to insure uniform evaluation of all applicants no matter where they live, and to help simplify and speed the decision process. These criteria were worked out with the aid of practicing physicians, major medical organizations and SSA's Medical Advisory Committee.

Generally, a claimant who is not working can meet the social security definition of disability if he has an impairment or combination of impairments that are the same as, or medically equivalent to, any set of findings in the criteria. (This is the only way the *widow 50 or over* can qualify for disability benefits.) However, for *all other claimants*

whose impairments fall short of this test, such factors as age, education, and work experience added to the functional limitations imposed by the medical condition are taken into consideration in making the disability decision.

The complete criteria, including the medical findings listed by body system, are contained in a handbook designed especially for professionals who come in contact with the disabled population. The handbook describes impairments in terms of specific symptoms, signs and laboratory findings that are presumed to be severe enough to prevent a person from working for a year or longer.

The handbook may be obtained from the Disability Determination Division, P.O. Box 1300, Richmond, Virginia 23210. Telephone 804-770-7021. We also welcome any inquiries from physicians who wish to know more about the social security disability program and its policies and procedures.

M. JANE PAGE, M.D.  
*Chief Medical Consultant*  
*Disability Determination Division*  
*of Virginia*

### **Karate Chop Causes Serious Damage to Liver**

Warning: A karate chop may be highly dangerous to your liver. Karate is a fast-growing participation sport due partially to the medical emphasis on the benefits of physical fitness and the individual desire for self-protection in the face of high municipal crime rates, says a communication in the June 4th issue of the *Journal of the American Medical Association*.

John Davis Cantwell, M.D., and James T. King, Jr., M.D., of Georgia Baptist Hospital, Atlanta, describe the case of a 39-year-old woman who suffered severe liver damage from a combination of blows to the abdomen during her second lesson in karate. She suffered pain at the time, but X-rays showed no broken bones, and she was given only mild pain killers.

Six weeks later she was hospitalized, severely ill. Surgery revealed the liver was lacerated and swollen to twice normal size. The damage was repaired and she recovered, after three weeks in the hospital.

The liver ranks second only to the spleen as the organ most commonly injured by a sharp blow to the abdomen. The death rate is high if treatment is delayed. In the case reported, the severe symptoms did not show up until six weeks after the injury. Early surgery and treatment are generally recommended for suspected liver injury.

"This is not to condemn karate but rather to call attention to the potential injury to an abdominal organ from a forceful blow. Closer supervision of participants is advised."



## **Book Review . . . .**

REVIEW OF MEDICAL PHARMACOLOGY. By Frederick H. Myers, Ernest Jawetz, and Alan Goldfien. 3rd Edition, 1972. Lange Medical Publications, Los Altos, California. \$8.50.

As in previous editions, the authors of the Third Edition of this book have directed their attention primarily toward those aspects of pharmacology that "serve the clinical needs of the student and practitioner in medicine, dentistry, nursing, and pharmacy."

The authors give further indication of the purpose and scope of this book in the Preface to this new edition:

"Learning how to think clearly about drugs is one of the medical student's most obvious and most difficult duties. Even clinicians with years of experience in prescribing for their patients are often at a loss to know what to accept and what to reject among the annual crop of claims for new drugs or drug modifications. The primary objective of this book is to foster a skeptical attitude toward all new drug claims and even to suggest to the practicing physician that he should occasionally reexamine his prescribing habits and critically reevaluate drugs he may have been using for years."

The book is divided into eight parts, each devoted to a major topic, with varying numbers of chapters covering the sub-headings relevant to that section. Part I, for example, is titled General Information and contains the following Chapters: Introduction; Pharmacokinetics and Drug Interactions; The Clinical Evaluation of Drugs; Technics of Drug Administration; Dermatologic Application; Toxicity of Therapeutic Agents; and Drug Abuse. For the most part, these Chapters contain information which should be of interest or usefulness to practitioners including certain topics which are frequently not covered in the standard pharmacology texts.

A notable example is Chapter 3. "The Clinical Evaluation of Drugs" which outlines some

of the salient features of this important aspect of drug therapy. Unfortunately, the authors appear to be at times unduly preoccupied with matters of drug economics; and, many will take exception to the statements: ". . . it (the Drug Industry) is an industry, and one must expect commercial rather than professional attitudes in some representations for its members. The conservative point of view is to regard any commercial source of information as biased whether it is in printed form or presented verbally by detail men." In view of the rigid regulatory controls under which the Drug Industry operates today, this seems an extreme and largely unjust admonishment.

The Drug Chapters provide a great deal of useful information on classes of drugs as well as specific agents in each class or group. The usual format is employed, i.e., History; Chemistry (Chemical and Pharmacologic Classification; Structure-Action Relationships); Absorption, Distribution, Metabolism and Excretion; Pharmacologic Actions (Mechanisms of Action; Effects); Clinical Uses; Adverse Reactions (Side Effects; Overdosage Toxicity; Allergic Reactions; Drug Abuse); Contraindications and Cautions; Preparations, Choice of Drug and Dosage; and, References. These discussions are presented in a concise, outline form abundantly interlaced with excellent diagrams, chemical formulae, graphs and charts which enhance the reader's understanding of the text material.

This book should be an excellent reference for students and practitioners in medicine, dentistry, nursing, pharmacy, and others in the healing arts professions. Its balanced presentation of "basic" and "applied" pharmacology (i.e., therapeutics) is refreshing and informative. The expanded sections relative to the Clinical Uses of drugs or classes of drugs should be especially useful to the busy practitioner who is seeking a comprehensive and current review of what is known in a particular therapeutic area.

FLETCHER B. OWEN, JR., M.D.

## Editorial . . . .

### SIC Transit Gloria Mundi

**W**HILE REVIEWING THE VARIOUS ACTIVITIES scheduled throughout the Commonwealth over Memorial Day week-end, the writer's eye was caught by the National Banjo Championships currently being held near Appomattox Court House. The choice of location was highly appropriate, for here John Sweeny was born in 1810, and here too, 21 years later, he reputedly made musical history by adding the fifth string to the banjo as we know it today. Despite being completely tone-deaf, the writer has long admired the banjo and regarded this noble instrument as being peculiarly American and especially Southern. It was meet and proper that Joseph should be memorialized in this manner and in his native county.

This, in turn, reminded the writer that in the spring of 1861 Sweeny found his Richmond audiences more concerned with the bombardment of Fort Sumter than with the minstrel show in which he was playing. In fact, he and the cast were stranded in what was soon to be the Capital of the Confederacy. As a practical man, and doubtless a patriotic one in view of his advancing years, he withdrew from the stage and enlisted in the Ninth Virginia Cavalry.

A few days later Jeb Stuart chanced to hear Joseph strumming on his favorite instrument and herewith a second and more exciting career began for our actor-soldier. Here was a man after the general's own heart and Joe was immediately detailed to the "Escort"—in other words, he was assigned to Cavalry Headquarters. Wherever Jeb went, along went Joe with his banjo and his endless repertoire of songs. So it was during the glory days of 1861-62.

On weekdays he would play "Alabama Gal, Won't You Come Out Tonight", but on Sundays he switched to "Rock of Ages" and led in the singing for evening vespers. General Lee was fond of Sweeny's music, but on at least one occasion, he had misgivings as to whether a nearby brown jug had played an accessory role in the unusual number of requests Joe had received for encores.

From all accounts the winter of 1862-63 proved to be a bleak one at Fredericksburg. The army tents offered scanty protection from the weather, and



especially vulnerable were the older men. Here General Lee had his heart attack and shortly afterward poor Sweeny died of pneumonia.

All of this leads up to the news items concerning the 40 individual banjoists, the numerous bands and 15,000 spectators gathered on the soggy 30 acre meadow near Appomattox during the rainy Memorial week-end. Each news release referred to Joseph Sweeny whom they were memorializing, but apparently no correspondent had the faintest idea who he was or what he had done, beyond the addition of the fifth string on his banjo. One of the manifestations of our confused and superficial era is the short view that many news reporters apparently take of all that transpired prior to their entering the newspaper field. But the writer was not prepared for the final article in *The Richmond News Leader* that tied up the festival, when it reported "The event was held near the birthplace of Joe Sweeney (*sic*), a slave credited by the Virginia String Music Association with the invention of the banjo".

*Shades of Editor Douglas Southall Freeman!*

H. J. W.

## **Calendar of Events**

VIRGINIA HEART INSTITUTE—Postgraduate Education Workshops and Seminars—  
The Medical Society of Virginia—Richmond—August 17, 1973.

WHITMAN MEMORIAL LECTURES—featuring "What's New In Medicine"—Hotel  
Roanoke—Roanoke—September 13, 1973.

WALTER L. THOMAS SYMPOSIUM ON GYNCOLOGICAL MALIGNANCY AND SURGERY—  
Duke University Medical Center—Durham, North Carolina—September 21-  
22, 1973.

TENNESSEE VALLEY MEDICAL ASSEMBLY—Read House—Chattanooga, Tennessee—  
October 1-2, 1973.

NATIONAL CONFERENCE ON PHYSICIANS AND SCHOOLS—Sponsored by American Med-  
ical Association—LaSalle Hotel—Chicago—October 4-6, 1973.

AMERICAN PSYCHIATRIC ASSOCIATION, SOUTHEASTERN DIVISIONAL MEETING—spon-  
sored by Neuropsychiatric Society of Virginia—Conference Center—Wil-  
liamsburg—October 7-10, 1973.

ANNUAL CARDIOVASCULAR SYMPOSIUM—Sponsored by Council on Clinical Car-  
diology—American Heart Association—Colony Inn—Williamsburg—October  
11-13, 1973.

THE MEDICAL SOCIETY OF VIRGINIA—Annual Meeting—Holiday Inn/Scope—Nor-  
folk—October 18-21, 1973.

SOUTHERN MEDICAL ASSOCIATION—Annual Meeting—San Antonio, Texas—Novem-  
ber 12-15, 1973.

AMERICAN MEDICAL ASSOCIATION—Clinical Session—Anaheim, California—Decem-  
ber 1-5, 1973.

CONFERENCE ON TEAMWORK FOR THE HANDICAPPED CHILD—Sponsored by the Vir-  
ginia Council on Health and Medical Care—Hilton Inn—Virginia Beach—  
December 9-11, 1973.

\* \* \* \* \*

The Medical Society of Virginia maintains a registry of medical meetings and programs of interest to Virginia physicians. You can help by keeping us advised of any meetings scheduled in your area. This will not only help others avoid conflicts but also provide helpful information on opportunities for continuing education.



## **New Members.**

The following members were admitted into The Medical Society of Virginia during the month of May:

Miguel A. Acevedo, M.D., Alexandria  
James Judson Booker, III, M.D., Norfolk  
Ranes C. Chakravorty, M.D., Richmond  
Lewis Daniel Crooks, Jr., M.D.,  
Richmond

Erlinda D. Cunanan, M.D., Chesapeake  
Darwin J. Ferry, Jr., M.D., Roanoke  
Neil E. Hatcher, M.D., Richmond  
Joseph T. Inglefeld, Jr., M.D.,  
Falls Church

Omer Lee Jeter, Jr., M.D.,  
Charlottesville

William C. Jones, M.D., Richmond  
Angelos G. Kapsalas, M.D., Richmond  
Young U. Kim, M.D., Roanoke  
Hwang-Ren Kuo, M.D.,  
South Chesapeake

Kovichi Matsushige, M.D., Portsmouth  
Thomas M. O'Neill, M.D.,  
Charlottesville

Eduardo D. Plagata, M.D., Tazewell  
Berkley Lamont Rish, M.D., Norfolk  
Krishna Sankar, M.D., Covington  
Robert J. Swan, M.D., Portsmouth  
Asa Richard Talbot, M.D., Harrisonburg  
P. V. Thomas, M.D., Norfolk  
Eugene Toker, M.D., Richmond  
Francis Patrick Welsh, M.D.,  
Woodbridge

Charles Jack Winfrey, M.D., Annandale  
Dionisio Ybanez, Jr., M.D., Stuart

## **New Councilor for Fifth District.**

Dr. Baxter H. Byerly, Danville, has moved to Tallahassee, Florida, and has, therefore, resigned as Councilor for the Fifth District of The Medical Society of Virginia.

Members of the Society from the District have met and elected Dr. Girard V. Thompson, Sr., Chatham, to serve the unexpired term.

## **POW Physician Honored.**

The nation's only physician POW was honored by The Medical Society of Virginia dur-

ing the Annual Convention of the American Medical Association in New York. Major Floyd H. Kushner, Danville, received a special certificate for distinguished service and was awarded honorary active membership in the Society. Dr. Carl E. Stark, President, made the presentation as a special feature of the Scientific Awards Dinner at the New York Hilton.

## **Dr. William E. Laupus**

Has been elected president of the Richmond Area Community Council. He is chairman of the department of pediatrics at the Medical College of Virginia.

## **Dr. William P. McGuire,**

Winchester, was elected president of the American Ophthalmological Society at its 109th annual meeting in May. His father, Dr. Hunter H. McGuire, was president of this Society in 1943.

## **Dr. Nagler Retires.**

Dr. Benedict Nagler has retired as director of the Lynchburg Training School and Hospital. He has been director for 16 years and will continue his association with the training school as a part-time private consultant and also will be a consultant for the Central Virginia Mental Services Board in Lynchburg.

Dr. K. Ray Nelson, recently of Birmingham, succeeds Dr. Nagler as director. He has been director of a management training program at the University of Alabama, which program trains administrators of state residential facilities for the mentally retarded.

## **Dr. Milton T. Edgerton,**

Charlottesville, has been installed as president of the American Association of Plastic Surgeons. He is chairman of the department of plastic surgery of the University of Virginia. Dr. Edgerton had previously served as vice president and as vice chairman and an examiner for the American Board of Plastic Surgery.

### **Board of Directors, Blue Shield of Virginia.**

Dr. John S. Thiemeyer, Jr., Norfolk, has been elected chairman of this Board of Directors. Dr. Carrington Williams, Jr., was named vice chairman. Dr. John M. Buckman, Charlottesville, Dr. William D. Liddle, Jr., Fredericksburg, and Dr. John R. Saunders, Lynchburg, were elected as new directors.

### **Southern Medical Association.**

More than 6000 physicians and paramedical personnel are expected to attend the 67th Annual Meeting of this Association in San Antonio, November 11-14. There will be more than 200 scientific and technical exhibits and 21 distinguished guest speakers will highlight the conference. The scientific program will include postgraduate courses on Facial Trauma; Emergency Medicine; American Fertility Society; Surgical Infections; Orthopedic Nurses; Radiological Society of North America Refresher Courses; and Dermatology Postgraduate Courses.

Dr. Joe T. Nelson, Weatherford, Texas, is president of the Association, and Dr. George J. Carroll, Suffolk, president-elect.

### **American College of Physicians.**

Members of The Medical Society of Virginia who were recently named Fellows of the College are: Drs. Hamid L. Al Abdulla and E. Randolph Trice, Richmond, and Dr. Robert C. Wheeler, Fredericksburg.

### **Medical School Gets Approval.**

The Eastern Virginia Medical School in Norfolk has received an accreditation committee's nod to accept its first class of 24 students in November. The State's first new medical school in 134 years and the only private one, would have to open later than September because of a faculty recruiting lag.

The school is located at the Lee Memorial Hospital in Norfolk but will move to new buildings to be constructed at the 65-acre Norfolk Area Medical Center at an undisclosed time.

### **William R. Whitman Memorial Lecture.**

The Seventh Annual Lecture will be held at the Hotel Roanoke, Roanoke, September 13th. The program will be presented by the Medical Faculty of the School of Medicine, University of Virginia.

These programs are sponsored by the Lewis-Gale Medical Foundation and are acceptable for three elective hours by the American Academy of Family Practice.

### **Postgraduate Seminar Cruise.**

Georgetown University School of Medicine announces its Seventh Postgraduate Seminar Cruise, October 4-21, 1973. This year the teaching cruise will be to the Eastern Mediterranean and will be on board the M.S. Europa. Ports of call will be Genoa, Malta, the Greek Islands, Athens, Lebanon and Israel.

Further information may be obtained from the official transportation agent, Allen Travel Service, 565 Fifth Avenue, New York, N. Y. 10017.

### **Emergency Room Physician.**

Accredited 280 bed progressive general hospital in beautiful Huntington, West Virginia. Excellent income and working conditions. Send resume to Assistant Administrator, Cabell Huntington Hospital, 1340 Sixteenth Street, Huntington, West Virginia 25701. (Adv.)

### **Physician Needed**

To provide examinations and treatment in Spinal Cord Injury Service of hospital. U. S. licensure required. 875-bed GM&S Hospital affiliated with Medical School. Excellent retirement and leave benefits. Nondiscrimination in employment. Contact Chief, Spinal Cord Injury Service, VA Hospital, Richmond, Virginia 23249. Telephone (804) 233-9631, Ext. 272. Equal Opportunity Employer. (Adv.)



# Obituary . . . .

## **Dr. Theodore Kohn,**

Richmond, died June 30, following a heart attack. He was seventy years of age and received his medical degree from the University of Maryland in 1928. Dr. Kohn had practiced in Richmond since 1930 at which time he also became a member of The Medical Society of Virginia. He served with the Medical Corps during World War II, with the rank of Captain, and was on duty in Iran.

His wife, a daughter and a son survive him.

## **Dr. Harry LeCato Smith, Jr.,**

Charlottesville, died June 16 at the age of sixty-five. He received his medical degree from the University of Virginia in 1937. Dr. Smith was a lifetime resident of Charlottesville and limited his practice to obstetrics and gynecology. He had been a member of The Medical Society of Virginia for twenty-nine years.

His wife, two sons and a daughter survive him.

## **Dr. Denoon.**

Dr. Harry Lee Denoon was born in Richmond in 1901. After graduation from Richmond Academy, he attended the University of Richmond and then transferred to University of Virginia where he was subsequently graduated with B.S. and M.D. degrees, the latter in 1924. After a year's internship at Johnston-Willis, he spent four years on Harvard Teaching Staff serving in the Lying-In Hospital, The Free Hospital for Women and the Boston City Hospital. He developed skills in general surgery, obstetrics and gynecology. He then returned to the surgical staff of Johnston-Willis which at that time was engaged in staffing the Northampton-Accomack Memorial Hospital, opened in 1928 at Nassawadox. Dr. Don Daniel, who had served as its first surgeon, was then transferred back to Richmond and Dr. Denoon was sent in 1929 to become its chief surgeon.

WHEREAS Dr. Denoon came to Nassawadox on a temporary basis, he soon became deeply rooted—recognizing the needs of the people of the Eastern Shore of Virginia and they in turn

appreciating his high qualities. In 1934, he married Clara West Holland of Eastville. The hospital became their problem-child, it being a young small institution in the depths of the depression. It was forced to compete for the care of the affluent with time-honored custom of going to Baltimore or Norfolk for surgery. However, an excursion trainwreck about that time showed Shore people that their hospital and its staff were valuable assets and subsequently, with careful nurture by Dr. Denoon and many others, it progressed. He went far beyond the call of duty, giving care for long hours, day or night and digging into his pocket to help needy patients, and with the building programs. He supported an R.N. training school, helped with the instruction and produced many fine nurses—still the nucleus for operation of the hospital.

It can truly be said of Dr. Denoon that he was a gentleman and a scholar. His manners were impeccable—ever kindly. The Denoons entertained in their lovely home many an intern and visiting physician. He loved to read, to swim, to sing, and play the banjo. He supported Hungars Episcopal Church—sang in its choir, was a continual vestryman and warden. He chaired the committee to build its parish house in 1961. He was well versed in literature and history; he early became a Fellow of the American College of Surgery. He gathered a rather extensive surgical library being ever a student. He enjoyed the Commonwealth Club and an occasional trip but the Denoons were a happy couple and loved best their home or their cottage on Warehouse Creek near-by. They had no children, but supported the education of others.

Dr. Denoon did his duty for organized medicine, taking his turn to chair the Medical Staff and the Northampton Medical Society. He held membership in The Medical Society of Virginia, the A.M.A., state and national surgical societies. He presented an occasional paper and attended training courses in many clinics.

Dr. Denoon was honored by Eastern Shore civic clubs, the Eastern Shore News, and was honorary chairman of the third annual Hospital Charity Ball in 1968, celebrating the Hospital's 40th year of service.

He participated in planning the new Hospital building in the late sixties and contributed to it. However, misfortune became his lot at about that time. He lost his wife and had an auto accident. Living alone, he suffered a severe stroke from

which he bravely attempted recovery in the care of kindly attendants at home. Sadly, he was never able to practice in the new Northampton-Accomack Memorial Hospital. His invalidism gradually increased and death kindly came to this great good man on April 23, 1973. He was laid to rest in Hungars Churchyard in the presence of a great crowd of Eastern Shore and Richmond people.

WILLIAM F. BERNART, M.D.  
E. M. HENDERSON, M.D.  
W. J. STURGIS, JR., M.D.  
JOHN ROGERS MAPP, M.D.

*Committee for Northampton  
County Medical Society*

### **Dr. White.**

On May 31, 1973, at the age of 75, Dr. Adam Duncan Ferguson White died of coronary heart disease.

Dr. White was a native of Milwaukee, Wisconsin, and a graduate of Beloit College. He served in the United States Army in England and France from January 1918 to June 1919 in World War I. He received his medical education at the University of Aberdeen, Scotland, where he graduated with M.B., Ch.B. in 1925. He interned in Coombe Hospital, Dublin, Ireland, and Mt. Vernon Hospital, Middlesex, England, from 1924-26. He was licensed to practice in Virginia in 1927, and after post-graduate work at the University of Virginia, he began the practice of OB-Gyn in Lynchburg. He later served a residency in OB-Gyn at Gallinger Hospital in Washington, D. C., from 1932-33, returning to Lynchburg to continue his practice.

During World War II he served with distinction in the Civil Air Patrol. He resumed his practice in 1946.

Dr. White was a member and past president of the Lynchburg Academy of Medicine, American Medical Association, The Medical Society of Virginia, Virginia OB-Gyn Society, South Atlantic Association of OB and Gyn, British Medical Association, and a Founding Fellow of the American College of Obstetrics and Gynecology. He was on the staffs of Lynchburg General-Marshall Lodge Hospital and Virginia Baptist Hospital.

He faithfully cared for and delivered the patients at the Florence Crittenton Home for some 25 years. He devoted many hours to the guidance and welfare of these girls, and only resigned in recent years due to his declining health.

Dr. White was a member and past president of the Rotary Club and rarely missed a meeting. He was a member of Boonsboro Country Club and for many years was an avid golfer. He was a member of St. John's Episcopal Church.

His main interest over the years was the care and welfare of his many patients. His time and effort in the practice of his chosen specialty was untiring and was manifested by the undying gratitude and loyalty of those he served so well.

Dr. White's kindness, great integrity, strong moral convictions, impeccable manners, sense of humor and dedication to duty will always remain as an inspiration to his patients and colleagues. "His like will not soon pass this way again."

He was a devoted family man and will be sorely missed by his wife, his stepdaughter, three stepsons and their children.

NOW, THEREFORE BE IT RESOLVED: That this memorial testimony of deep regret at the loss of our much loved and highly esteemed colleague be written in the minutes of the Lynchburg Academy of Medicine, The Medical Society of Virginia, and that a copy be sent to his family.

JOSEPH E. WARREN, M.D.  
JOHN R. SAUNDERS, M.D.  
JOHN WYATT DAVIS, JR., M.D.



## Guest Editorial . . . .

### **American Association of Medical Assistants**

**O**UR MEDICAL ASSISTANTS have a privileged occupation of great trust and responsibility. Courtesy, consideration, and an expressed interest in the patient's problems are all a part of the good medical assistant's attributes. Their impact on their physician's success and efficiency may be even greater than he realizes. They provide the all important liaison between doctor and patient, making our tasks lighter. They are the patient's first and last contact when visiting the doctor's office, and frequently become the most important public relations agent in our practices. Our medical assistants have to be both professional and pleasant in the treatment of patients as well as competent and efficient in the execution of administrative and clinical duties. They bridge what some have called the greatest communication gap in our society—that between the medical profession and the general public.

The American Association of Medical Assistants, which was first organized in 1956, has always benefited from the close cooperation and support of AMA and its component medical societies, both county and state. AAMA is structured in the same manner as organized medicine, with county (or local), state, and national chapters. Physician-advisors give advice, counsel and guidance at all three levels. The Medical Society of Virginia and many of our local medical societies support the Virginia Society of AAMA with advisors and financially.

Over 300 women participate in eleven chapters of the Virginia Society of AAMA. They perform critically needed services for us and are vital members of the health care team. Our recognition of their indispensable contributions to our practices is usually inadequate. The physician who supports his medical assistant's participation in AAMA is repaid a hundredfold.

The annual meeting of the Virginia Society of AAMA is held on a May weekend. This year it was held at the Boar's Head Inn in Charlottesville; in 1974, it will be held at Virginia Beach; in 1975—Fairfax; in 1976—Roanoke. An interesting educational program is held along with the necessary meetings of the state society and some social functions. A state-sponsored educational

seminar is also held annually on a Sunday in November and hosted by one of the local chapters. This year it will be hosted by our Petersburg Chapter and held at the America House in Petersburg.

The primary objective of AAMA is self-improvement so that the medical assistant can better serve the medical profession and the public, and members of AAMA spend countless hours of their own time to achieve this purpose. AAMA inspires its members to give honest, loyal and efficient service, to improve their educational backgrounds and better serve their employers. Members participate in organized educational activities, planned meetings, study groups, continuing educational programs and workshops. Seminars and regional conferences, as well as the annual state and national conventions, offer the constant opportunity to participate in seminars and study groups covering all phases of the medical assistant's professional life. Its bylaws state that it will never become a union or collective bargaining agency. The AMA has commended the AAMA on four separate occasions since 1956, and it is the only medical assistants' organization to have received the commendation of the House of Delegates. "The AMA House of Delegates urges every physician to become fully acquainted with the objectives and program of the AAMA and to fully encourage his own assistant to seek membership." The continuing programs of education and self-improvement afforded to medical assistants through the auspices of AAMA is bringing to our offices a higher caliber of service by reducing the types and quantities of human errors.

Since 1963, a national examination has been given annually as part of a Certification Program to help physicians identify top-level medical assistants, administrative and/or clinical, and to establish professional standards and goals. Satisfactory completion of this examination is recognized by presentation of a certificate and the right to wear the CMA pin. In 1969, a two-year medical assisting curriculum was developed jointly by AMA and AAMA. Over 40 medical assisting programs have been accredited by the AMA Council on Medical Education, in collaboration with AAMA. A guided home study program is also being developed for employed assistants who wish to improve themselves but do not have access to college courses or a chapter study group.

From October 23-27, 1973, the 17th annual convention of the American Association of Medical Assistants will be held at the Shoreham Hotel in Washington, D.C. Virginia, the District of Columbia and Maryland are co-hosting this convention. This meeting is expected to draw over 1,200 participants from across the country and from foreign countries, including Great Britain, Canada and Germany. Over 70 British secretaries are planning to attend, and many local and state chapters and individuals are sponsoring these medical assistants.

The theme of the 1973 convention is "Pathways to Monumental Goals".



Educational sessions will include panels on health care legislation, shock trauma, cardiac resuscitation, office planning and design, and practical application of computerized medicine. Tours have been arranged to National Landmarks, the Kennedy Center for the Performing Arts, the U.S. Naval Academy, Alexandria and Mount Vernon, the State Department and Intensive Care Units. Post convention tours have been arranged to Williamsburg, Malaga, Spain, and Rome, Italy.

With the National Convention so close to Virginia, it is hoped that the physicians of the Old Dominion will encourage their medical assistants to learn more about AAMA and encourage them to attend not only the meetings of the local chapters of AAMA, but also the national convention this year in Washington, D. C. This will be an excellent opportunity to help her help you through self-improvement. Your medical assistant is invited to this meeting, whether or not she is a member of AAMA. We hope that more women with the assistance of their doctors will avail themselves of the opportunities afforded by this organization. AAMA needs and deserves our support.

RALPH E. HAGAN, M.D.

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# Professional Standards Review Organization (PSRO)

## A Positive Look at the Possibilities

FAYETTA WEAVER  
JAMES C. RESPESS, M.D.  
LEON GEOFFREY  
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**N**OW THAT PROFESSIONAL STANDARDS REVIEW is to be required of physicians treating in-hospital Medicare and Medicaid patients, every practicing physician should obtain a copy of the law (P.L. 92-603) and read it carefully.\* This simple act will allay more fears and win more advocates to PSRO than any argument because the law speaks for itself. For this reason, what follows is not a section-by-section defense of the legislation but rather an informal review of the positive aspects inherent in the law. It should be emphasized, however, that regulations have not been written regarding implementation. As usual in Federal legislation, this is where problems can arise: these regulations, if too restrictive, could work against some of the favorable features of PSRO discussed below.

### Benefits to Organized Medicine

P.L. 92-603 is written with a thorough understanding of what is helpful and fair to competent physicians. Emphasis is educational, not punitive; more quality- than cost-oriented; local autonomy is preserved. A physician will

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Submitted by the Experimental Medical Care Review Organization (EMCRO) of the Albemarle County Medical Society.

This article was prepared by Fayette Weaver, EMCRO project administrator, with the assistance of James C. Respass, M.D., and Leon Geoffrey. The final draft was reviewed by John A. Owen, M.D., Samuel E. Miller, M.D., and William M. O'Brien, M.D.

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\*Write: Office of Professional Standards Review, Room 1014, HEW South, 330 "C" Street, S.W., Washington, D.C. 20201, requesting *PSRO section* of P.L. 92-603.

be judged by his peers in the area, not by geographically distant specialists who might not understand local medical problems. State and national councils will also be physician controlled. This means that if medicine assumes the responsibility to create viable review bodies on local, state, and national levels, the danger is slight that the current health care system will be destroyed by bureaucratic red tape or standardization of poor practices. Considerable adjustment will be needed, however, since most medical audit groups, such as hospital utilization review and tissue committees, will not in their present form satisfy the intent of the law, although they have contributed greatly to quality practice in many areas.

The cornerstone philosophy of the PSRO legislation is that education is the key to higher quality medicine and several mechanisms for education are built into the law. Analyses of patterns of practice will be generated on practicing physicians and will then be reviewed by practicing physicians. The two sides of the coin—participation on the review board or being personally reviewed by a board—provide means for continuing education in the broadest sense of the term. On a larger scale, these profiles will be also used to determine the level at which a given hospital delivers over-all care. Continuing education on the group level can be tailored to the particular needs uncovered by review. Thus, the PSRO legislation provides an educational framework not only for the individual physician but also for the entire hospital staff.

The financial aspects of the legislation are conducive to success of the PSROs. Funding



of PSROs through the Social Security Trust will insure enough money to cover necessary expenditures. Reimbursement of physicians for appropriate review activities will be provided and the time spent on the paperwork aspects of these activities will be included. In fact, as long as PSRO guidelines are in the hands of physicians, physicians will control the paperwork. They will make the decisions concerning procedures and reasons for review and necessary documentation of the review. There is every reason to believe that physicians on review boards will work continually to minimize and simplify the paperwork, since they will be responsive to the needs of the practitioner.

The guidelines for the initiation of quality standards into the local PSRO are flexible, avoiding the hasty adoption of arbitrary standards for the management of all diseases. First, in cooperation with Utilization Review Committees in local hospitals, criteria can be developed that will improve the quality of care delivered, rather than freezing it at whatever level physicians are practicing at the time of PSRO designation. Second, the setting of these criteria will be done at the pace set by the local PSRO and modifications made as experience is gained. Finally, fear that criteria might eliminate exercise of a physician's own medical judgment is largely unfounded because panels of local physicians will both develop the criteria and continually re-evaluate them. For all these reasons, practicing physicians can be assured that only reasonable and documented criteria will be used as parameters in review of medical practice.

### **Benefits to Practicing Physicians**

Not only does PSRO offer organized medicine a chance to increase efficiency and improve performance, but also provides an opportunity for individual practitioners to improve their practice. The criteria, unlike some journal articles that may deal with interesting but unusual diseases, will be addressed to common medical problems that are regularly encountered. They will incorporate the

most current information available from the medical literature and from careful local surveys, in order to place quality-oriented, definitive guidelines within every physician's reach. Of course, this will not relieve the doctor of his responsibility to continue to study independently, but it will aid him in day-to-day patient encounters.

Participation on peer review committees will provide an educational experience for those who choose to serve, as will *being* reviewed by the board. To review a peer's practice encourages a physician to re-evaluate accepted procedures in the light of current medical knowledge. To *be* reviewed may surprise a physician by revealing that some of his patients are receiving medical care which is inadequate or outdated. The intent of the law is not so much to ferret out the incompetent physician as to upgrade quality among all physicians. Should a physician deviate from the criteria grossly or habitually, he will learn eventually through the review process how his practice differs from what his colleagues view as good practice.

PSRO is also good insurance for practicing physicians. According to the legislation, malpractice suits would have little chance of success against physicians who follow accepted criteria. Also, PSRO will provide physicians with review experience that would be likely to strengthen the role of physicians in dealing with any national health insurance program that Congress might adopt.

The confidentiality of data is protected under PSRO. Only the information required for the insurance carrier to process a claim need be released. This guarantees that insurance carriers will not gain access to personalized data that are important to the educational process but not to claims settlement. Nor are the carriers given a position where they could dictate permissible charges or services to physicians.

The claims-reporting to insurance companies can be simplified. As was noted above, PSRO will control the data, thus making possible a single physician-designed format in preference

to the time-consuming tailoring of information to the different formats of different carriers.

In some areas, PSRO will undoubtedly help to standardize hospital records. There is no good reason for charts of different hospitals staffed by the same physicians to be totally different. Even minor details such as page color for pathological, radiological, and other reports would facilitate the review mechanism and help the consulting physician reach a more rapid understanding of the patient's condition.

Greater uniformity of insurance and hospital records will cut clerical costs and reduce physicians' time spent on unnecessary paperwork.

Finally, PSRO offers an alternative that will appeal to those who doubt the merits of plans by several Specialty Boards for routine recertification examinations. Standardized tests have less value in measuring knowledge of experienced practitioners than in the case of students, nor do they demonstrate that a physician routinely uses all his knowledge. PSROs provide the means for judging a physician in terms of his actual practice and may possibly diminish the need for recertification examinations.

### **Benefits to Consumers**

The general public will also benefit from the legislation. As a quality-assurance program, PSRO will provide factual evidence that patients receive good care. This accountability of physicians will reassure Medicare-Medicaid recipients and their families that they are not victims of under-utilization, despite their financial situation. Although individual phy-

sicians are regarded by consumers as most trustworthy, strengthening of that confidence in the profession as a whole will benefit all—both physicians and patients.

Penalties are not stressed, but they are considered under PSRO; in instances where abuses or incompetence are uncovered, a physician may be excluded from claiming payment for future Medicare-Medicaid patients, or be required to make a deposit with the Department of Health, Education and Welfare to cover any inappropriate procedures. This should present no problems to the vast majority of ethical and competent physicians.

It is expected that cost saving will be realized as over-utilization is identified and unnecessary procedures are eliminated. This saving will be passed on to the taxpayer, the ultimate financier of Medicare and Medicaid, and should be far in excess of the cost of PSRO operation.

PSRO, under the direction of qualified and dedicated physicians, can bring all these benefits to American medicine. But an ultimatum is inherent in the law: if physicians do not meet the challenge of PSRO with positive action, the future is hardly auspicious. Instead of emphasis on quality and encouragement of research, PSRO could foster cost containment and mediocrity in a system that would strap innovation and physician judgment. Physicians can either act now to make the most of the opportunity or relinquish the traditional prerogatives of the medical profession.

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# PSRO — What Is It Really All About?

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**F**ROM THE UTTER CONFUSION which surrounds the origins and proposed implementation of the Professional Standards Review Organizations (PSRO), certain facts are emerging which will help to put the program into its true focus.

It all started with the Federal Government paying the bills of Medicare and Medicaid patients and rapidly finding out that the ardent proponents of these benefits had indeed grossly underestimated the cost of these programs, which fact had been made very clear by organized medicine when it tried to modify these proposals prior to their enactment. Then came the clamor to "save money" and "get the most for the health dollar", and the immediate target became the physicians' charges. As these were squeezed down to only a percentage of the promised usual and customary allowances, it became obvious to the people in Washington that utilization of hospital and ancillary services presented the highest portion of health care costs and it then was determined that if proper "parameters" and "guidelines" could be placed on such utilization many dollars could be saved.

Senator Wallace Bennett of Utah, a conservative and supposed friend of American Medicine, then introduced a Professional Standards Review Organization (PSRO) bill which provided that local and regional organizations should be set up to "review the quality, necessity and appropriateness of hospital services provided to Medicare and Medicaid recipients, to determine whether the Federal government should pay for these services." Each PSRO would have the authority to review and determine in advance the medical necessity for elective hospital admissions. The PSRO would apply "norms" of care, diagnosis and treatment based on typical patterns of practice in its region, and would also have to

determine that the most effective and also the most economical mode of care had been used. Other duties of the PSRO would include recertification of continuing need for patient care, establishment of provider and practitioner profiles and recommendation of sanctions for "violators" and "abusers" of the program. In addition the PSRO might possibly accept the findings of utilization committees of institutions which "have shown their ability to properly review" the care given in their facilities.

Senator Bennett's concept was that the physicians should do all the PSRO work. The AMA fought actively to eliminate the PSRO provisions; however, after PL 92-603 was adopted by the Congress in 1972, the AMA determined to become instrumental in the implementation of this law in order to "keep it under physicians' control". What then has happened since the passage of the law?

Despite AMA's cooperation, only one member sponsored by it, Dr. Robert Hunter, has been appointed to the eleven member National PSRO Council. Medical Schools have three representatives, and three well known PSRO and HMO proponents, Drs. Alan Nelson, Willard Scrivener and Donald Harrington are on the Council, as well as representatives of the American Osteopathic Organization and the National Medical Association. Incidentally, to the best of my knowledge there is not one member from the South or Southeast on that board. Thus despite the pious phrases of allowing "local control" it is becoming abundantly clear that the AMA input at the top-level is going to be minimal and that regional and national standardization of medical practice will become inevitable. Another point made in favor of PSROs has been that "we must control our own bad apples". While granting the need for self-policing, as has been

done for many years through grievance-committees, fee committees and mediation committees, as well as through hospital utilization and tissue committees, it is equally necessary to maintain an atmosphere of intellectual and professional freedom, to allow a physician to do his best for his patient. Drawing an analogy, we will not allow the abuse of freedom of speech by a few to abridge the whole concept of that freedom for all. Thus we might have to accept some abuse of the free practice of medicine by a few to allow it to continue for the vast majority of ethical and conscientious physicians.

Let us then summarize our main points of opposition to the PSRO concept.

1. Medicine and its practice is a profession and an art which can only be practiced well in an atmosphere of professional freedom and independence. Once standards and norms and parameters are set, the physician will become a technician who will practice "cook-book" medicine in order to avoid the inconvenience and annoyance of having to justify his treatment and practice to his "peers".

2. Once the norms and controls are properly established by the physicians' own "police force", it will become easy for Washington to completely control the practice of medicine by taking over the setting of standards and modes of practice, extending them beyond the present application to Medicare, Medicaid and ADP programs, including setting national licensure requirements, as well as re-licensing programs.

3. The frequently used argument that such review, as PSRO, is better done by physicians than by the government itself must bear careful scrutiny. The principle of "we can do it ourselves" in order to "keep others from doing it to us", would only hold true if we could actually control the process. As has already been shown by experience with Medicare and

Medicaid advisory committees and with the already mentioned composition of the National PSRO Committee, it becomes clear that "physician control" will become nothing but a window dressing to make the program more palatable. Let there be no mistake about it, the PSRO physician will act as a government employee, paid by it and doing the bidding of his ultimate boss, the Secretary of HEW. The PSRO physician will in effect assist at his own intellectual and professional enslavement.

4. It is argued that since the law is now in effect, it must be obeyed. Let it be well noted that the law does not force physicians to establish PSROs, it states that other organizations may be so designated by the Secretary HEW, if physicians do not choose to co-operate. From recent experiences with government inefficiency in cost-overruns, the post-office disaster and the railroad fiasco, it might well be worth-while to allow the government the opportunity to show how efficiently it could administer medical services under Medicare, Medicaid and ADP. After all they already have a dismal record of waste and inefficiency in the VA Hospitals and other governmental institutions. Also let us remember that bad laws can be repealed, and that we might have a much better chance at doing so if we do not embrace the PSRO concept even as an expedient.

In summary, American Medicine has a long tradition of independence and professional integrity. Acceptance of PSRO would become the first final step toward total control of the Medical profession by the government. The concept of "our own control" of the PSRO is a sham and a delusion. Let us maintain our professional independence and judgment. Let the government "do it"! It might be an experience well worth watching!

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# Vascular Forum . . . .

## Extra-Cranial Carotid Artery Injury Following Non-Penetrating Cervical Trauma

Edited by

L. GREGG HALLORAN, M.D.

STUART A. LEVINSON, M.D.

Non-penetrating cervical trauma, resulting in carotid arterial injury, presents a challenge both in diagnosis and management. Other peripheral arterial injuries following blunt trauma may be reasonably well assessed by pulse evaluation, but the detection of carotid lesions is difficult. This is due to the inaccessibility of the vessel to direct examination, the common lack of evidence of direct cervical trauma, and the frequently associated signs of concomitant cerebral injury which confuse the clinical picture. The following case is presented to illustrate this injury and document its course in one patient.

### Case 1—1973

A 36 year old male was admitted to MCV following a head-on automobile crash. He was in Grade III coma, had a flail chest, and an obviously fractured right lower extremity. His right pupil was dilated and deviated to the right, and his left upper extremity moved very sluggishly to painful stimuli. Bilateral Babinski reflexes were present.

Widening of the mediastinum on chest x-ray prompted an aortic archogram, and because of the cerebral signs, the study was extended to include the carotid and intracranial vascular tree. There was marked slowing of flow in the extracranial internal carotid artery with an intimal irregularity at the C<sub>2</sub>-C<sub>3</sub> level (Fig. 1). The artery was occluded in its intracranial portion without evidence of a cerebral mass lesion. The remainder of the study was normal.

Material selected from cases presented at the Medical College of Virginia's monthly Vascular Surgery Conference.

A tracheostomy was performed to relieve respiratory insufficiency, and by the fourth hospital day, the patient was able to follow



Fig. 1. Arrow indicates intimal disruption at C<sub>2</sub>-C<sub>3</sub> level. Emergency angiogram.

simple verbal commands. His subsequent course was one of steady improvement, except for diplopia which persisted and handicapped the patient.

Six weeks following injury, cerebral angiography was repeated. The intracranial carotid on the right was normal, and at the site of the intimal tear there was a 5 x 11 mm. traumatic aneurysm (Fig. 2). Subsequently, six months after his injury, the lesion was again angiogrammed, and the aneurysm was now obliterated with only a small intimal defect remaining (Fig. 3). He underwent corrective



extraocular muscle surgery for relief of his diplopia, and returned to his previous employment as an electronics communications expert.



Fig. 2. Carotid angiogram six weeks following injury demonstrates 5 x 11 mm. traumatic aneurysm.

Follow-up has now extended to one year without the occurrence of any new signs or symptoms.



Fig. 3. Carotid angiogram six months following injury demonstrates obliteration of aneurysm with small intimal defect. Patient asymptomatic.

## Discussion

This unusual case was recently included in a report from the Medical College of Virginia by Sullivan, Vines, and Becker.<sup>1</sup> They described four cases of extracranial, carotid artery disruption which occurred after non-penetrating, cervical trauma. Since their report, an additional case has been seen at MCV. In all five patients, carotid artery intimal disruption was demonstrated by angiography to be located in the upper cervical region. In addition, it was noted that all injuries were present without evidence of any direct neck trauma, although two patients had mandibular fractures.

Mandibular injury, with impingement upon the carotid artery, has been suggested as the etiology of this lesion;<sup>2</sup> however, a more plausible explanation is thought to be hyperextension of the internal carotid artery over the upper cervical spine with concomitant contralateral rotation of the head.<sup>1</sup>

The five patients in the MCV series all sustained high-speed trauma which resulted in multiple injuries, including closed head trauma of varying magnitudes. The severity of the head injuries was the major factor in determining the extent of recovery. However, following the acute phase, evidence of cerebral thromboembolism which resulted in carotid occlusion did occur and was documented angiographically in four of the five patients.

The management of these lesions is controversial. Towne, Neis, and Smith<sup>3</sup> reported on four patients who had similar arterial injuries. Three underwent immediate corrective surgery; however, two died from post-operative cerebral deterioration, and the third remained unimproved. The relatively benign course pursued by the patient in this case report, plus the four reported by Sullivan et al.,<sup>4</sup> would suggest that early surgery should not be performed. In addition, cerebral embolization in four of the five MCV patients would suggest that anticoagulation might be indicated; however, other serious injuries precluded this modality of therapy.

Finally, the actual incidence of extra-cranial



carotid artery injury following non-penetrating cervical trauma is not known. The sparsity of cases reported in the literature, however, would suggest that it is of rather rare occurrence. It is more likely, though, that the majority of these arterial lesions have been attributed to the associated closed head injury and have not been delineated angiographically.

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### Walking

Want to lose ten pounds in the next year? One way you can do it is to walk an extra mile every day. At a brisk clip.

The American Medical Association says that a walk of just an extra mile per day for 36 days is a simple, pleasant device for shedding an extra pound of fat. In a year this would mount up to ten pounds. Provided, that is, that your food and calorie intake remains unchanged. The extra mile means just that—a mile of walking in addition to the customary walking you now do each day.

Once regarded as a major factor in losing weight, physical activity was later accorded less importance. It was realized that considerable effort was required to shed even one pound of extra tissue. Would-be reducers found comfort in some expert opinion that calories expended through exercise would be immediately replaced, due to an automatic increase in appetite.

Fortunately for fitness as well as for fatness,

exercise has been restored to grace and enjoys respectability. Exercise helps expend calories. Within the usual range of activity, it need not stimulate appetite excessively. The energy output required to offset a pound of fat is approximately 3,500 calories, but the weight need not be lost all at once.

Instead of an exhausting, often impossible, 36-mile hike within a span of hours, a walk of just one extra mile a day for 36 days will get rid of that extra pound. Weight gain is usually relatively slow, and the extra mile will—for many of us—help keep our weight down to a reasonable figure.

To be effective for both weight reduction and for general physical conditioning, exercise must be a regular part of your way of life, and not something that is overdone spasmodically.

So, if you want to lose ten pounds in the next year, just arrange to walk that extra mile today.

MACK I. SHANHOLTZ, M.D.  
*State Health Commissioner of Virginia*

## Rules and Regulations for Control of Ionizing Radiation

A number of old upright fluoroscopes in Virginia are not in compliance with the new rules and regulations of the State Board of Health, which became effective April 1, 1973, for control of ionizing radiation, because of their obsolete design. In most cases they cannot be modified to meet the regulations. It is felt that continued use of these fluoroscopes should be terminated because of the hazards involved to the patient as well as to the operator.

It is estimated that there are approximately 100 of these old units still in use, some of them with unshielded x-ray tubes which cannot be replaced by the shielded type. Unshielded tubes can deliver from several hundred to several thousand milliRoentgens of leakage radiation which expose the patient and operator alike to unnecessary x-ray. The equipment should be constructed so that the beam is automatically terminated if the viewing screen is removed. Most do not, and this particularly endangers the physician. Also, many do not have cumulative timing devices to terminate the exposure as required by the regulations. The phosphors in many viewing screens have deteriorated from age and require higher patient exposures to obtain an acceptable diagnostic image.

Perhaps the worst hazard is that these fluoroscopes are being used in place of radiographic units. Many physicians admit that they fluoroscope chests for evidence of respiratory disease. As a result, their patients receive anywhere from 1,000 to 20,000 milliRoentgens per examination as compared to 15-20 milliRoentgens for a single PA chest radiograph at 10 mAs, or roughly one-thousand times less exposure to patients.

Previously, before these regulations were in

force, the State Health Department representatives were able to persuade some practitioners to discard these fluoroscopes. Others reported that they plan to abandon the use of this equipment. In Section F.3(c) the new regulations allow one year, (until April 1, 1974), for upgrading deficient equipment. This should provide sufficient time for the physician to replace his old equipment. Radiographs provide a permanent legal record documenting the patient's condition and are of greater value than fluoroscopes to both the physician and patient.

Recently, the Federal government (FDA) developed x-ray equipment performance standards which became effective August 15, 1973. These standards provide for greater safety and compatibility of x-ray components by the manufacturer and the assembler, which is usually a local service representative. These standards which became effective August 15, and they change ownership after August 15, and they basically do not affect the State's radiological health program with regard to the new regulations or the x-ray survey program.

Safe fluoroscopic equipment under the regulations must include those devices which restrict unnecessary exposure: a shielded tube, a viewing screen which cannot be removed from the x-ray beam without terminating exposure, a cumulative timer, aluminum filtration, protective lead drapes (where applicable), a dead-man type exposure switch and an exposure rate of less than 10 Roentgens per minute. Most equipment manufactured in the last ten years meet all these requirements or can be easily modified to meet the requirements. The upright fluoroscopes cannot be modified, and

*(Continued on Page 820)*



# Medicare—Part B . . . .

## Psychiatric Limitations

There are three types of reimbursement under the Medicare Part B Program:

1. 80% of allowable charge
2. 100% of inpatient Radiology and Pathology services
3. 80% of 62.5% of allowable psychiatric charges. (psychiatric limitation)

Regulations place a restriction on total payments made during the course of a calendar year under the psychiatric limitation. The maximum amount payable is limited to \$250.00. To arrive at the maximum payment, no incurred expenses exceeding \$500 in a calendar year may be used in computing Medicare payment. \$500 maximum times 62.5% (considerable percentage) equals \$312.50. Medicare payment is 80% of \$312.50 or \$250.00.

Formula: Incurred expenses (\$500 maximum)  
X 62.5% X 80% = amount payable.

The term "mental, psychoneurotic, and personality disorders" is defined as the specific psychiatric conditions described in the American Psychiatric Association's *Diagnostic and Statistical Manual-Mental Disorders*. The limitation applies only to expenses incurred for physicians' services rendered in connection with one of these psychiatric conditions (with no distinction being made between the services of psychiatrists and non-psychiatrist physicians), and any items or supplies furnished by the physician in his own office.

The Act specifies that the limitation is applicable to expenses incurred in connection with the treatment of an individual who is *not* an inpatient of a hospital. Thus, the limitation is applicable to services furnished by physicians in outpatient departments, in a physi-

CURTIS J. KELLY, JD

cian's office, the patient's home, an extended care facility, etc.

*Example:* Patient A receives psychiatric treatment during 1972. He visits the psychiatrist's or non psychiatrist's office once a week and the charge for these visits is \$25.00 per visit. His total bill for services is \$400.00. The deductible has been satisfied for 1972. The total bill for outpatient services is \$400.00. Sixty-two and one-half percent of this amount is \$250.00. Eighty percent of \$250.00 is \$200.00. The \$200.00 is the amount paid for outpatient services.

The same patient goes to the hospital as an inpatient with a diagnosis of acute mental disorder. The total charge for psychiatric services during his hospital stay is \$350.00. Since the \$350.00 in Part B charges were for services while the beneficiary was an inpatient, eighty percent of this amount may be paid as if they were non-psychiatric expenses.

If the primary diagnosis reported by the physician for a particular service is the same as, or equivalent to, a condition described in the APA's *Diagnostic and Statistical Manual-Mental Disorders*, the charge for the service will be subject to the benefits limitation in connection with the diagnosis and treatment of a mental, psychoneurotic or personality disorder. If more than one diagnosis is listed on the bill for services rendered, Medicare will assume that the first diagnosis listed is the primary diagnosis in the absence of information to the contrary.

*Example:* Medicare receives a request for payment form with diagnosis of anxiety and hypertension. If primary diagnosis is anxiety,

psychiatric limitation applies. If hypertension is primary diagnosis, then Medicare pays 80% of allowable charges. If neither diagnosis is listed as primary, and Medicare has no way of determining primary, then we must assume the diagnosis listed first to be primary.

Some of the psychiatric diagnoses found in

the APA's *Diagnostic and Statistical Manual-Mental Disorders*, for which the psychiatric limitation applies are as follows:

1. Senility; 2. Alcoholism; 3. Drug Addiction; 4. Anxiety Neurosis; 5. Depression; 6. Organic Brain Syndrome; 7. Schizophrenia; 8. Paranoia.

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## **PUBLIC HEALTH**

### **Rules and Regulations for Control of Ionizing Radiation**

*(Continued from page 118)*

are not in keeping with modern standards of radiation protection. Checks with most other states indicate that they are working toward eliminating these devices.

The State Health Department intends to apply positive enforcement of the new regulations with the objective of eliminating the use of upright fluoroscopes by April 1974.



# The Medical Society of Virginia . . . .

## Minutes of Council

A meeting of the Council of The Medical Society of Virginia was held at Richmond's Executive Motor Hotel on Sunday, July 8.

*Members Present:* Dr. Carl E. Stark, Dr. John A. Martin, Dr. William S. Hotchkiss, Dr. Alvin E. Conner, Dr. Mack I. Shanholtz, Dr. Harry J. Warthen, Dr. William J. Hagood, Jr., Dr. Raymond S. Brown, Dr. Charles E. Davis, Jr., Dr. Carrington Williams, Jr., Dr. George J. Carroll, Dr. Girard V. Thompson, Sr., Dr. H. C. Alexander, III, Dr. James C. Respass, Dr. Thomas L. Lucas, Dr. James Hal Smith and Dr. C. Barrie Cook (for Dr. W. Leonard Weyl).

*Others Present:* Dr. K. K. Wallace, Jr., Vice-Speaker; Dr. Alexander McCausland and Dr. William R. Hill, AMA Delegates; Dr. William R. Drucker, Dean, University of Virginia School of Medicine; Dr. John R. Jones (for Dr. Warren H. Pearse), Executive Associate Dean, Medical College of Virginia; Dr. Joseph Yon (for Dr. Robert T. Manning), Associate Dean, Eastern Virginia Medical School; Dr. J. B. Funkhouser (for Dr. William S. Allerton), Deputy Commissioner, Department of Mental Health & Mental Retardation; Mr. Robert G. Stuart, Executive Secretary, VaMPAC; Mr. James S. Imboden, AMA Field Service Representative; and Mr. William R. Miller, Attorney.

## Student Component Society

Council was advised that a student component medical society is now in the process of being organized at the Medical College of Virginia. A formal request for a charter has been received. The new society was represented by Mr. Gary Miller and Mr. Hyman and they expressed the hope that their group could soon be active in the affairs of the Society.

During the discussion it was brought out that the only organized student group at the Medical College of Virginia at the present time is a chapter of the Student American Medical Association. Dr. Stark pointed out that The Medical Society of Virginia could not charter the SAMA chapter as a component. Rather, the society receiving the charter would stand on its own as a component of The Medical Society of Virginia and would have no connection with any other student group.

It was then moved by Dr. Hotchkiss that once

all requirements of the By-Laws have been met, a charter be granted the newly organized student component medical society at the Medical College of Virginia. *The motion was seconded and carried.*

## PSRO

Dr. Robert Keeley, Chairman of the Society's ad hoc Committee on Peer Review, reported that the directives of the House of Delegates had been carried out and that a proposed plan for a PSRO in Virginia had been completed. He stated that a great deal of the work had been done by Dr. William O'Brien and Mr. Leon Geoffrey, both of Charlottesville, and that they were on hand to answer any questions Council might have.

Dr. Keeley then covered the proposed By-Laws in detail and invited questions and comments.

He reported that Dr. Conner had submitted several comments having to do with the powers of the President and the need of a required audit.

Dr. Hagood expressed the opinion that the Sturgis Standard Code of Parliamentary Procedure should replace Robert's Rules of Order as the parliamentary authority. It was brought out that Sturgis is becoming more and more popular because of its concise language and overall simplicity. *A motion by Dr. Hagood to designate the Sturgis Code as the parliamentary authority was seconded and adopted.*

During further discussion of the By-Laws, Council was advised that at least one component society favors the local PSRO approach rather than the Statewide Foundation approach provided in the proposed plan. It was also brought out that the State Foundation approach has been frowned upon by the Department of Health, Education and Welfare. It was agreed, however, that the House of Delegates must be presented a plan which is considered best for Virginia and that any outside pressures should be resisted.

Three possible names for the PSRO were considered and it was moved by Dr. Hagood that "Virginia Professional Standards Review Foundation" be adopted. *The motion was seconded and adopted.*

A motion was then offered which would prohibit directors voting by either proxy or mail. *The motion was seconded and carried.*

There followed some discussion concerning just how much power the President should have and what limitations, if any, should be imposed.



Dr. Davis moved that Article VII, Section 4 of the proposed By-Laws be amended to read as follows:

"The President will preside at all meetings of the Board of Directors. He is the official representative of the Foundation at meetings of cooperating and affiliated organizations. He calls all regular and special meetings. He appoints all committees, designates committee chairmen with the approval of the Board of Directors, and is an ex-officio member of all committees."

*The motion was seconded and adopted.*

It was then agreed that a regular audit of the Foundation's books should be conducted by a CPA. It was also agreed that a sentence should be added to Article VII, Section 7 which would read as follows:

"He will be bonded and the books audited annually."

The "Articles of Dissolution" (Article XII) were then discussed at length and a question was raised concerning proper disposition of funds. It was agreed that such funds should revert to The Medical Society of Virginia for ultimate distribution to charitable or other deserving groups concerned with health care in Virginia. *A motion to this effect by Dr. Hotchkiss was seconded and carried.*

Dr. Martin then moved that the second sentence of paragraph one, Article X, Section 1, be amended by substituting the word "may" for "will". *The motion was seconded and adopted* and the paragraph reads as follows:

"A full and comprehensive annual report of the activities of the Foundation will be submitted to The Medical Society of Virginia for presentation to the Society at the time of its annual meeting. This report may be distributed to all other interested agencies and organizations."

It was noted that paragraph (A) of Article X, Section 3, refers to the Virginia Board of Medical Examiners rather than the correct title of Virginia State Board of Medicine. *A motion by Dr. Martin to make the necessary correction was seconded and adopted.*

At this point Council was advised that a sample survey of Virginia physicians had elicited a 70% response thus far. Although the survey revealed that a considerable number of physicians are unfamiliar with the PSRO provisions of Public Law 92-603, it did bring out that most physicians

are ready and willing to proceed with a PSRO in Virginia.

Dr. Keeley then covered the proposed PSRO plan in detail. During his presentation, it was brought out that the Law does not provide for the review of private office records at this time.

Upon completion of his presentation, Dr. Keeley introduced Mr. Edward G. Zivot of American Health Systems—a California-based organization which works entirely with medical societies and foundations. Mr. Zivot stated that his organization has been extremely successful in guiding foundations through the organizational stages. It can negotiate contracts with various state agencies, recruit required personnel, assist in obtaining funds, etc. He urged the Society to proceed and persist in its efforts to establish the type PSRO it desires. It was pointed out that a number of other groups and organizations would be only too willing to step in and do the job if the physicians of Virginia failed to follow through.

It was then moved by Dr. Davis that the report of Dr. Keeley's Committee (the proposed plan and by-laws) be accepted and referred to the House of Delegates for final action in October. *The motion was seconded and adopted.*

Dr. Keeley and the Committee were complimented on an excellent job. Dr. Stark indicated that the Committee would remain active until after the House of Delegates has acted.

### Continuing Medical Education

Dr. Carroll reported that a subcommittee of the Committee on Medical Education had prepared a report which would soon be presented to Council. The report would be in the form of a proposal having to do with the accreditation of continuing medical education within the State of Virginia.

Council was advised that the State Board of Medicine, during its most recent meeting, had adopted a resolution recommending legislation which would authorize it to establish continuing education as a condition of relicensure of all persons licensed by the Board. The resolution also recommended that all educational requirements be established in cooperation with those professional associations represented on the Board and that the appropriate association be contacted before any refusal to relicense is issued.

There followed considerable discussion during which a number of suggestions were made. Some thought that the matter should be tabled until the next meeting of Council and others thought that the State Board of Medicine should be advised of the Society's action on PSRO and its



concern over the content and timing of the resolution. Attention was also called by Dr. Hill to a recent report by the AMA Board of Trustees.

Dr. Hotchkiss then moved that Council reconsider its action of April 8 in which it approved a statement that documentation of continuing education should be a requirement for licensed practitioners in the State of Virginia. The motion further recommended that continuing education be made a requirement for membership in The Medical Society of Virginia. The motion was seconded.

A suggestion was made that the motion be divided into two parts for voting purposes, but a motion to that effect was rejected. It was brought out that should the motion be adopted, it would be referred to the House of Delegates for final action.

*The motion was then adopted.*

It was then recommended that the President write the President of the Board of Medicine and advise him of Council's action. The letter would contain a request that the Board take no further action until after the House of Delegates has met in October.

Dr. Stark advised Council that he was able to stop publication in the *Family Practice News* of an article having to do with continuing medical education in Virginia and its relation to relicensure. He had considered the timing of the article very poor and, consequently, had assured the Editors that a substitute article would be prepared immediately following the meeting of Council. The action was brought to the attention of Council simply as a matter of information.

### **Emergency Medical Services**

A number of groups in the State have given considerable thought to the advisability of developing a Comprehensive Emergency Medical Services Planning Council. The proposed Council would be made up of representatives from the General Assembly, Department of Health, The Medical Society of Virginia, Virginia Hospital Association, medical schools, Virginia Association of Rescue Squads and the Association of Firemen.

It was brought out that AMA has recently recognized the increasingly important role of the physician engaged in emergency medical practice. There was also some thought that The Medical Society of Virginia needs a Committee on Emergency Medical Services. Such a Committee would provide excellent liaison with the proposed Emergency Medical Services Planning Council and

would enable the Society to carry out its proper role.

*A motion by Dr. Brown authorizing the President to appoint a Committee on Emergency Medical Services was seconded and carried.*

### **Constitution and By-Laws**

The Advisory Committee of Past Presidents has spent a great deal of time discussing the advisability and feasibility of restructuring the Society's Constitution and By-Laws. It was the Committee's opinion that our present By-Laws frequently hinder the proper functioning of the Society and often interfere with needed actions.

It was the Committee's recommendation that Article IX of the By-Laws be completely restructured as promptly as possible. Mentioned was the fact that some standing committees are so constituted that they cannot perform the functions for which they were intended and others are not functioning simply because there is no need.

Although the Committee was not unanimous concerning a complete revision of the Constitution and By-Laws, it did recognize the need for considerable change and a complete overhaul. It was believed that legal assistance and advice would be required.

Dr. Martin expressed the feeling that many provisions of the By-Laws are antiquated and agreed that an overhaul of the Committee system is certainly needed. He realized that a complete revision of the By-Laws cannot be accomplished overnight and suggested that only the more critical and obvious items be corrected at this time. He indicated that many organizations have eliminated their Constitutions—incorporating everything into the By-Laws. Apparently this has worked very well in most instances.

It was then moved by Dr. Carroll that the Judicial Committee be directed to proceed in accordance with the recommendations of the Committee of Past Presidents—directing its immediate attention to Article IX of the By-Laws and other Sections requiring immediate attention. The motion also provided that a complete overhaul of the By-Laws be carried out as recommended and that it be completed within a twelve-month period. *The motion was seconded and adopted.*

### **Staff Reorganization**

The Advisory Committee of Past Presidents agreed with the Executive Vice President that the staff, as presently constituted, is not geared to do the complete job now being demanded of



it. It was pointed out that the membership has reached the 4,400 level and continues to grow. Present staff members have for some time been restricted by an unusually large volume of routine administrative work and consequently unable to effectively plan for a future which will bring with it demands for services in new and hitherto unexplored areas.

A proposed table of organization was reviewed and it was noted that it contained five distinct service areas. It called for an addition of two staff members and an additional basic expenditure of \$20,000 per year. Pointed out also was the fact that the Society's income this year will approximate \$250,000 but that total expenses will quite likely exceed \$260,000. It was estimated that future needs would require a minimum budget of \$280,000. As a result, it was the Committee's recommendation that active membership dues be increased from \$60 to \$85.

A question was raised concerning additional office space and two alternatives were discussed. There was some thought that the conference room could be partitioned in such manner as to provide for a committee room and two offices. Should this suggestion be turned down, the only solution would be to construct an additional wing on the building.

It was then moved by Dr. Hagood that Council approve the proposed staff reorganization and recommended dues increase. The motion also called for the appointment of an ad hoc committee to study the headquarters building and make recommendations concerning its expansion or modification. *The motion was seconded and carried.*

### **The Waltons**

Dr. Warthen noted that the TV series known as "The Waltons" had captured the interest of the Nation with its portrayal of life in rural Virginia and that those episodes having to do with medicine had been unusually well received. He stated that the author of the series, Earl Hamner, Jr., is a Virginian who was actually born and raised in the house depicted on the screen.

It was Dr. Warthen's feeling that The Medical Society of Virginia should recognize the contribution that Mr. Hamner has made and that an appropriate letter of commendation and appreciation should be directed to him. *A motion to this effect was seconded and carried.*

### **Virginia POWs**

Council was advised that The Medical Society of Virginia had honored Dr. Harold Kushner, Danville, during the recent AMA meeting in

New York. Dr. Kushner, the Nation's only physician POW of the Viet-Nam war, was awarded honorary active membership in the Society. It was agreed that Dr. Kushner should be invited to attend the Annual Meeting in Norfolk and Dr. Stark indicated that such an invitation would be issued.

It was then brought out that Virginia is the home of several other physicians who were prisoners of war during other conflicts. The Secretary was requested to obtain as accurate a list as possible for the next Council meeting.

### **State Fair Exhibit**

The State Department of Health was reported as anxious to obtain Society endorsement of an exhibit on hypertensive screening which it plans to sponsor during the State Fair. The exhibit will be manned by public health nurses and volunteers from the Virginia and Richmond Heart Associations. The Department will have the cooperation of the U. S. Public Health Service and has stated that reports of a positive nature obtained through the screening procedure will be referred to the family physicians concerned.

*A motion by Dr. Davis to endorse the exhibit was seconded and carried.*

### **Prayer Breakfast**

It was recalled that Council had directed that every effort be made to hold prayer breakfasts whenever possible during Annual Meetings. Such a breakfast is being planned for the 1973 Annual Meeting by the Committee on Medicine and Religion.

### **1974 Travel Program**

Dr. Martin reported that several possibilities for the Society's annual two-week travel seminar have been proposed. INTRAV would once again be the travel agency involved. He stated that he had talked to a number of members and most seemed to prefer a European Adventure. Consequently, he recommended that the Society sponsor a trip to Geneva, Vienna and West Berlin with a July 8, 1974, departure date. *A motion of approval was seconded and carried.*

Dr. Martin also indicated that shorter trips would probably prove popular and recommended that one or two be tried during the Fall and Winter months. *His motion to sponsor a shorter trip was seconded and carried.*

### **Immunity for Peer Review Committees**

Council learned that a number of inquiries have been received concerning immunity from civil liability when serving on peer review committees.



It was also learned that the Virginia Dental Association had expressed a wish to work with The Medical Society of Virginia in an effort to obtain enactment of protective legislation. Some states already have such laws in effect and a bill recently approved by the Kentucky General Assembly was reviewed.

It was then moved by Dr. Hagood that the matter be referred to the Legislative Committee for appropriate action. *The motion was seconded and carried.*

### **House Staff and AMA Meetings**

The American Medical Association has recommended that state medical societies sponsor the attendance of at least one house staff member at all AMA conventions. The expenses of such representatives would be paid in full by the sponsor.

After considerable discussion, it was moved by Dr. Williams that the matter be tabled. *The motion was seconded and adopted.*

### **Blue Shield Form**

Council gave careful consideration to a resolution recently adopted by the Tri-County Medical Society concerning the current Blue Shield claim form. The resolution stated that the form introduces an unnecessary third diagnostic code and places an intolerable data collecting burden upon the physician and his office staff. The Tri-County statement also expressed the feeling that The Medical Society of Virginia should adopt a common and simple insurance form and a single diagnostic code for standard reporting.

It was learned that the National PSRO Office is very much interested in the development of standard claim procedures and that the answer to the problem might well be found when PSROs become a nationwide reality.

Council was informed that a number of letters had recently been received in the State office from individual physicians urging the Society to develop a standard form for use by all carriers operating in Virginia. It was agreed that the possibility of such action deserved much consideration. It was also agreed that the Tri-County Medical Society should be accepted for information purposes.

### **Board of Health Resolution**

The General Assembly, during its most recent Session, enacted conditional legislation which would establish a new Department of Conservation, Development and Natural Resources and relocate to that Department responsibility for sewage and solid waste disposal.

Fear was expressed that more and more responsibilities having to do with health are being taken away from the true health professionals. Consequently, *a motion by Dr. Martin to endorse the following resolution adopted by the State Board of Health was seconded and carried:*

"WHEREAS, the General Assembly of Virginia in 1973 passed conditional legislation to establish a new Department of Conservation, Development and Natural Resources and to relocate to that department responsibility for sewage and solid waste disposal; and

"WHEREAS, the General Assembly is continuing its studies and hearings on the establishment of this new department; now, therefore, be it

"RESOLVED, that the State Board of Health hereby reaffirms its actions of April 7, 1971, and February 7, 1973, and restates its position that the disposal of human waste and solid waste, as well as the protection of drinking water supplies, is primarily a matter which affects the health of the public and, accordingly, the control activities related to these systems should remain under the auspices of the State Health Department; and be it further

"RESOLVED, that the Board desires to communicate its position on this proposal to the legislative committee carrying out the continuing study and public hearings as well as to organizations and agencies primarily concerned with the health of the citizens of the Commonwealth."

### **Health Resources and Care in Virginia Jails**

The American Medical Association has recently surveyed the availability, nonavailability and status of health resources and health care in Virginia jails and copies of the survey have been made available to the Society. The survey was undertaken for the purpose of obtaining information which would provide a better approach for the development of its program to assist correctional facilities in improving their medical and health care services.

A question was raised as to whether the Society should take any additional action and it was moved by Dr. Respass that an appropriate committee study the material and consult with Dr. Shanholtz as to what further action, if any, should be taken. *The motion was seconded and carried.*

### **Osteopathy**

An application for membership in The Medical Society of Virginia was recently received from

an osteopath who holds membership in a component medical society. Although the application was in good order, Society By-Laws do not appear to permit such membership in The Medical Society of Virginia at this time.

It was brought out that the AMA favors efforts to absorb osteopaths into the membership of state societies and that such action is taking place more and more over the Nation.

It was then moved by Dr. Cook that Council approve membership for osteopaths who are members in good standing of component medical societies and that the matter be referred to the Judicial Committee for necessary follow-through. *The motion was seconded and carried.*

### Legislative Report

Mr. Osburn reported that the Legislative Committee is already preparing for the 1974 Session of the General Assembly and will have a complete legislative package ready for the House of Delegates in October. He indicated that a great deal of progress had been made in developing widespread interest in a defective delinquent law. Although a sizable capital outlay would be required to implement such a law if enacted, everyone contacted thus far believes that it would be justified because of the crime deterrent factor.

Other matters of interest at this particular time have to do with bringing Virginia's abortion law in line with recent rulings of the Supreme Court and affording some protection to physicians where malpractice suits are concerned.

Mr. Osburn indicated that the Committee will hold its next meeting in late August to review those bills not passed by the General Assembly in 1973 and requested as much advance notice as possible concerning any legislation which might be sought by component societies.

### Total Disability

The Society was recently contacted concerning the possibility of obtaining medical opinions on cases involving total disability when insurance carriers reach an impasse with attending physicians. This would, in effect, place the Society in the role of an arbiter.

Following considerable discussion it was moved by Dr. Williams that the insurance carrier concerned be advised that the matter appears to be one for the carrier rather than the Society. *The motion was seconded and carried.*

### Reference Committees

Dr. Hagood expressed the thought that Reference Committees of the House of Delegates should be appointed prior to the meeting in order that they might have an opportunity to become familiar with many of the items to come before them. This raised a question as to how Committee members could best be appointed. Should the appointments be made during District caucuses held before the meeting or should they simply be appointed by the Speaker ahead of time? There were many who believed that Vice-Councilors should be appointed to Reference Committees and it was generally agreed that this represented a good approach to the problem.

It was then moved by Dr. Respass that the Rules of Procedure for the House be rewritten in such manner as to provide for appointment of Vice-Councilors to the Committees provided that they are members of the House. *The motion was seconded and adopted.*

### Specialty Society Liaison

Dr. Martin advised Council that he hoped to work very closely with the various specialty societies during his Presidential year. One of his goals is to establish the best possible working relationship with the various groups. He expressed the hope that he would be able to attend many of the specialty society meetings and briefly address their memberships if at all possible. Everyone agreed that this was a most worthwhile objective.

There being no further business, the meeting was adjourned.

ROBERT I. HOWARD, *Secretary*

APPROVED:

CARL E. STARK, M.D., *President*



# PRELIMINARY PROGRAM

126th Meeting

The Medical Society of Virginia

Holiday Inn — Scope  
Norfolk, Virginia  
October 18-21, 1973





# The Medical Society of Virginia

HOLIDAY INN-SCOPE

NORFOLK, VIRGINIA

OCTOBER, 18-21, 1973

## THURSDAY, OCTOBER 18

9:00 A.M.

### COUNCIL

Nansemond Room

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2:00 P.M.

### HOUSE OF DELEGATES

West Ballroom

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## SPECIAL EVENTS

## THURSDAY, OCTOBER 18

Council, The Medical Society of Virginia

9:00 A.M.—Business Session (Nansemond Room)

12:00 Noon—Luncheon (Portsmouth Room)

Southern Medical Association Councilors

12:30 P.M.—Luncheon (Virginia Beach Room)

House of Delegates, The Medical Society of Virginia

2:00 P.M.—West Ballroom

VaMPAC

6:00 P.M.—Reception (East Ballroom)

7:30 P.M.—Banquet (West Ballroom)

## FRIDAY MORNING, OCTOBER 19

9:00 A.M.

### Session "A"—EAST BALLROOM

Welcome and Preliminary Announcements—James S. Kitterman, M.D., Chairman, Committee on Arrangements.

### SCIENTIFIC PROGRAM

Alvin E. Conner, M.D., Manassas, Presiding.

PANEL ON MEDICAL EDUCATION—An in-depth report from Virginia's Medical Schools

9:00 A.M.—John R. Jones, M.D., Executive Associate Dean, Medical College of Virginia, Richmond.

9:15 A.M.—James W. Craig, M.D., Associate Dean, University of Virginia School of Medicine, Charlottesville.

9:30 A.M.—Robert T. Manning, M.D., Dean, Eastern Virginia Medical School, Norfolk.

9:45 A.M.—Question and Answer period.

10:00 A.M.—PROBLEM ORIENTED PRIVATE PRACTICE OF INTERNAL MEDICINE—Ray H. Smith, M.D., Richmond.

The problem oriented system is ideally suited for the private physician in internal medicine and especially for physicians in partnership or group practice. The fundamental components of the system include the data base, problem list, initial plans, progress notes, and flow records. Methods of formulating a data base and other components of the system and the practical application of incorporating these components into the office and hospital record are discussed.

10:15 A.M.—A COMPUTERIZED MEDICAL PRACTICE SUPPORT SYSTEM—Robert A. Reid, M.D., Charlottesville.

A computerized, on-line, problem-oriented, medical information system has been developed for use by the private practicing physician. The system is designed so that entry of clinical data automatically provides information for billing the patient. It maintains records of growth and development, vaccinations, problems, and medications as well as providing rapid communications between the offices of colleagues.

A single record about each patient is available to each physician in the community if given the proper keys by his patient. Figures on cost will be presented.

10:30 A.M.—WHAT'S NEW IN THE VIRGINIA MEDICAL EXAMINER SYSTEM?—David K.

Wiecking, M.D., LLB, Chief Medical Examiner, Richmond.

10:45 A.M.—Question and Answer period.

11:00 A.M.—Coffee in the Exhibit Hall.

**SYMPOSIUM ON COMMON PROBLEMS OF THE PRE-SCHOOL CHILD—Sponsored by Virginia Pediatric Society.**

11:30 A.M.—THE HYPERKINETIC CHILD—Ronald B. David, M.D., Richmond.

11:45 A.M.—DIAGNOSIS AND MANAGEMENT OF GROWTH PROBLEMS IN THE PRE-SCHOOL CHILD—R. B. Young, M.D., Richmond.

12:00 Noon—INFANT NUTRITION—CURRENT CONCEPTS—David Draper, M.D., Richmond.

12:15 P.M.—Question and Answer period.

12:30 P.M.—Recess.

**9:00 A.M.**

**Session "B"—JAMES-ELIZABETH ROOMS**

Duncan S. Owen, Jr., M.D., Richmond, Presiding.

9:00 A.M.—BAKER'S CYSTS IN CHILDREN—Edward B. MacMahon, M.D., Alexandria.

A review of 44 cases of excision of a Baker's Cyst in children under ten years revealed almost no pre-operative disability and the average time of observation prior to surgery was two months. This review suggested that the expected benefits from surgery were not justified by the risks of general anesthesia, intubation, tourniquet and surgery. It has been noticed that this condition is most common at about the age of five years but that one does not see this condition in teenagers when of long duration. This implied spontaneous disappearance of the Cyst if enough time were allowed.

To evaluate this question, a joint study by The Medical Society of Virginia was begun and, to date, 42 Cysts have been followed in this registry. Its findings will be discussed.

9:15 A.M.—EXPERIENCE WITH TOTAL KNEE REPLACEMENT—Charles M. James, M.D., Joseph Mensch, M.D., and Fayette McElhannon, M.D., Richmond.

This paper deals with the use of the Geometric Total Knee Replacement Arthroplasty. An objective

rating system has been devised to rate the patients pre- and post-operatively. Thus far the device has satisfied the criteria for successful Arthroplasty. It has maintained motion and relieved pain. Appropriate slides and movies of patients will be shown.

9:30 A.M.—THE FLEXIBLE FIBEROPTIC BRONCHOSCOPE, A NEW AND USEFUL CLINICAL TOOL—Emil J. Kleinholz, Jr., M.D., Richmond.

Since its introduction in Japan in 1968 the flexible fiberoptic bronchoscope has proved itself to be a valuable clinical tool in the diagnosis and treatment of pulmonary disorders. Some of its advantages are: (1) Ease of application, (2) Increased patient comfort, (3) Increased range of visualization of the tracheo-bronchial tree, (4) Improved methods for obtaining tissue for diagnosis, and (5) Photographic capabilities which enhance teaching of disorders of the respiratory system.

Experience with the Fiberoptic Bronchoscope in 150 patients will be discussed and case histories with appropriate slides will be presented.

9:45 A.M.—Question and Answer period.

10:00 A.M.—PEDIATRIC PLASTIC SURGERY—A paper sponsored by Virginia Society of Plastic and Reconstructive Surgeons—Richard A. Mladick, M.D., Norfolk.

There are many common problems seen in the practice of the family physician, pediatrician, general surgeon, orthopedic surgeon, etc., in which the principles of plastic surgery may play an important role. This paper details the handling of many such problems including dog bites, human bites, lawn mower injuries, fractured noses and other common types of trauma. Other subjects discussed will include common types of pediatric burns, pediatric head and neck tumors, etc.

In addition, a brief run-down will also be given as to the current thoughts on an age at which a cleft lip and a cleft palate surgery should be repaired and when protuberant ears should be set back. The talk is liberally illustrated with slides and diagrams.

10:30 A.M.—MANAGEMENT OF RUPTURED ABDOMINAL AORTIC ANEURYSMS—Jock R. Wheeler, M.D., Norfolk.

A series of 30 patients who were operated upon for ruptured abdominal aortic aneurysms are presented. These cases represent a five-year inclusive series of the author's private patients. Factors influencing morbidity and mortality are emphasized. Indications and techniques of intra-operative and post-operative monitoring of arterial blood gases and arterial pressures are outlined. The value of a special cardiovascular intensive care unit is described. This series reveals an overall mortality rate of 36.7%. In the past three years the mortality rate has dropped



to 16.6%. Factors contributing to this improvement are outlined.

The technical aspects of operative management are described, including the use of straight replacement grafts and routine gastrostomy tubes.

10:45 A.M.—Question and Answer period.

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11:00 A.M.—Coffee in Exhibit Hall.

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11:30 A.M.—PRIMARY CARE AS AN ACADEMIC DISCIPLINE—Sponsored by Virginia Academy of Family Physicians—Fitzhugh Mayo, M.D., Richmond.

Until recent years there has been complete ignorance concerning the content of primary care. Education in primary care is dependent on knowledge of its content. An information system is described which is being used to define primary care.

11:45 A.M.—ACUTE ALCOHOLIC PANCREATITIS: EFFECT OF CLINICAL PRESENTATION AND THERAPIES ON OUTCOME AT VETERANS ADMINISTRATION HOSPITAL—Donald M. Switz, M.D., Richmond.

Because previous discussions of acute pancreatitis have neither compared the effect of clinical presentation nor therapeutic efforts on outcome, 102 sequential admissions to all services at the McGuire V.A. Hospital during 1971 with a diagnosis of acute pancreatitis were reviewed to evaluate the outcome. Various exclusive clinical subgroups were examined to discover their effect on the duration of hospitalization.

This paper discusses the various therapies given and their results. It reports some striking conclusions.

12:00 Noon—EXPERIENCES WITH MEDICO-CARE IN INDONESIA—Arthur A. Kirk, M.D., Portsmouth.

Medico, which is a branch of CARE run by physicians on a voluntary basis, has for several years promoted medical care and education in medically undeveloped countries.

The author, in 1972, visited Indonesia and assisted in the training of orthopaedic residents in Central and Fatmawati Hospitals in Djakarta. Many unusual cases were examined and treated.

He feels strongly that this type of program for training physicians and specialists on their home ground is much superior to having them come to this country—never to return home.

12:15 P.M.—Question and Answer period.

12:30 P.M.—Recess.

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## FRIDAY AFTERNOON, OCTOBER 19

2:00 P.M.

### General Session—EAST BALLROOM

Harry G. Hager, M.D., Williamsburg, Presiding.

2:00 P.M.—SYMPOSIUM—Arranged and Sponsored by Virginia Obstetrical and Gynecological Society.

3:15 P.M.—Question and Answer period.

3:30 P.M.—Adjourn.

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3:00 P.M.

Reference Committee #1—Civic Room

Reference Committee #2—Portsmouth Room

Reference Committee #3—Virginia Beach Room

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## SPECIAL EVENTS

### FRIDAY, OCTOBER 19

#### VaMPAC

7:30 A.M.—Breakfast—Board of Directors (Civic Room)

Virginia Society of Internal Medicine

7:30 A.M.—Breakfast (Suite 700/701)

American Association of Public Health Physicians, Virginia Chapter

7:30 A.M.—Breakfast (Nansemond)

Virginia Obstetrical & Gynecological Society

1:00 P.M.—Luncheon (Nansemond)

American College of Physicians, Virginia Section

1:00 P.M.—Luncheon (West Ballroom)

Virginia Industrial Medical Association

1:00 P.M.—Luncheon (Suite 700/701)

Medical College of Virginia Medical Alumni Association

6:00 P.M.—Reception (Portsmouth-Virginia Beach Rooms)

7:00 P.M.—Banquet (East Ballroom)

Jefferson Medical College Alumni Association

6:30 P.M.—Reception (Nansemond Room)

University of Virginia Medical Alumni Association

6:30 P.M.—Reception (West Ballroom)

7:30 P.M.—Banquet (West Ballroom)

Virginia Dermatological Society  
7:00 P.M.—Dinner (James-Elizabeth Rooms)

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**SATURDAY MORNING, OCTOBER 20**

**9:00 A.M.**

**Session "A"—WEST BALLROOM**

John A. Owen, Jr., M.D., Charlottesville, Presiding.

**SCIENTIFIC PROGRAM**

SYMPOSIUM ON CONTACT DERMATITIS—Sponsored by Virginia Dermatological Society. R. Campbell Manson, M.D., Richmond, Moderator.

9:00 A.M.—William Jordan, M.D., Richmond.

9:15 A.M.—*Guest Speaker*—Alexander A. Fisher, M.D., New York.

9:45 A.M.—Question and Answer period.

10:00 A.M.—Panel on CURRENT PROGRESS IN THE MANAGEMENT OF PROSTATIC CANCER—Sponsored by Virginia Urological Society.

Participants will be members of the Virginia Urological Society. Warren W. Koontz, Jr., M.D., Richmond, Moderator.

Estimates of cancer incidence reveal that cancer of the prostate is the fourth leading cancer in men. The necessity for early diagnosis with adequate management is reflected in the high curability rate of prostatic cancer when it remains localized. However, when first seen only 5% of all prostatic cancer patients are candidates for curative surgery. This panel will review the epidemiology and staging of prostatic cancer and the significant advances that have been made in the diagnosis and therapy of this disease in the past several years. These include surgery, radiotherapy, chemotherapy and immunological techniques.

10:30 A.M.—EXPERIENCE WITH ACUPUNCTURE—Stephen Chu, M.D., Richmond.

The art of acupuncture has been applied in China for many centuries. Treatment of pain has been the area in which acupuncture has shown best results. Reports from Mainland China have demonstrated recently that acupuncture can be used even to provide anesthesia for surgery. Not much is known in the West about this type of treatment and so far there is not an acceptable theory to explain its mode of action. The experience with more than 50 patients will be presented.

10:45 A.M.—Question and Answer period.

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11:00 A.M.—Coffee in the Exhibit Hall.

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**Panel on HYPERTENSION—A NEW APPROACH**

11:30 A.M.—WHAT IS A GOOD HYPERTENSIVE WORKUP? WHO NEEDS IT? A. Jarrell Raper, M.D., Richmond.

11:45 A.M.—WHO NEEDS TREATMENT FOR HYPERTENSION? Arthur S. Gear, Jr., M.D., Richmond.

12:00 Noon—PRACTICAL MANAGEMENT OF HYPERTENSION. A. Jarrell Raper, M.D., Richmond.

12:15 P.M.—Question and Answer period.

12:30 P.M.—Recess.

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**9:00 A.M.**

**Session "B"—JAMES-ELIZABETH ROOMS**

Edward D. Levy, M.D., Norfolk, Presiding.

9:00 A.M.—OSTEODYSTROPHY IN THE DIALYZED UREMIC—SEVEN YEARS' EXPERIENCE—F. B. Westervelt, Jr., M.D., and N. O. Atuk, M.D., Charlottesville.

Uremia predisposes patients to bone disease by means of impaired Vitamin D effectiveness, calcium deficiency, hyperparathyroidism and acidosis. Long-term hemodialysis, partially successful in alleviating other manifestations of uremia, does not itself control osteodystrophy, and may facilitate its progression.

The intricacies of substitution therapy are nowhere better exemplified than in the manipulation of the multiple influences on skeletal integrity. Well conceived dialysis must be integrated with diet and drug treatment for the best effect. The details of our current approach will be discussed.

9:15 A.M.—CATECHOLAMINES, RENIN AND HYPERTENSION IN TERMINAL RENAL FAILURE—N. O. Atuk, M.D., F. B. Westervelt, Jr., M.D., and J. Roman, M.D., Charlottesville.

The role of endogenous catecholamines and their contribution to renin release and hypertension in renal failure have been explored. Fifteen patients with advanced renal failure and 13 patients with terminal renal failure on dialysis were studied. The data suggest that in advanced and far-advanced renal failure circulating catecholamines are increased. De-



creased enzymatic inactivation as well as decreased excretion of the amines may contribute to high circulating catecholamines levels and high renin hypertension in renal failure.

9:30 A.M.—ANDROGENIC STEROIDS IN ANEMIA OF CHRONIC RENAL FAILURE—Duane G. Wombolt, M.D., and Norma Oller, M.D., Norfolk.

One of the most difficult problems in management of patients with chronic renal failure is that of severe anemia. Shaldon reported on the beneficial effects of androgenic steroids in stimulating erythropoiesis in patients with chronic renal disease. Following this preliminary report we have undertaken the evaluation of large dose androgenic steroids on the anemia of patients in a chronic hemodialysis program. Because of blood loss in the coil with dialysis, all patients were started on maintenance oral iron therapy and also given folic acid. The study was started in September, 1971, and is ongoing. The treatment and results will be outlined.

9:45 A.M.—HEMOGLOBIN A<sub>1</sub> IN NORMAL AND DIABETIC PREGNANCY—Mark Koury, M.D.—Paper accepted while 4th Year Medical Student, Charlottesville.

A minor component of human hemoglobin, Hb A<sub>1c</sub>, has been found to be increased two or three-fold in adult diabetics. To distinguish between an inherited and acquired hemoglobinopathy, the relationship of HbA<sub>1</sub> concentration to the pregnant state was studied in non-diabetic (15), suspected diabetic (8) and treated diabetic (3) patients. Blood samples were obtained during the third trimester of pregnancy and, in 12 patients, post-partum as well.

Both gestational and treated diabetes showed increased levels of HbA<sub>1</sub> in the third trimester; levels in suspect diabetes were not significantly increased. The gestational diabetics also showed a further significant increase in HbA<sub>1</sub> concentration post-partum. The implications of these findings will be discussed.

10:00 A.M.—Question and Answer period.

10:15 A.M.—Coffee in the Exhibit Hall.

10:45 A.M.—CURRENT STATUS AND USES OF GALIUM 67 IN NUCLEAR MEDICINE—Alton R. Sharpe, Jr., M.D., Melvin J. Fratkin, M.D., and Jerry Hirsch, Pharm. D., Richmond.

11:00 A.M.—Panel on UTERINE CANCER—Sponsored by Professional Education Committee of Virginia Division of the American Cancer Society.

Ludovic J. DeVocht, M.D., Alexandria, Moderator.

Discussion by panel members will include the current status of diagnosis and therapy of pre-malignant and malignant lesions of the uterus.

12:15 P.M.—Question and Answer period.

12:30 P.M.—Recess.

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## SATURDAY AFTERNOON, OCTOBER 20

2:00 P.M.

### General Session—WEST BALLROOM

Duncan S. Owen, Jr., M.D., Richmond, Presiding.

2:00 P.M.—TRANSPHENOIDAL MICROSURGERY FOR ACROMEGALY: SUCCESSFUL TREATMENT WITH PRESERVATION OF PITUITARY FUNCTION—Sponsored by Neurosurgical Society of the Virginias—Donald P. Becker, M.D., Harold F. Young, M.D., Romas Sakalas, M.D., and John K. Vries, M.D., Richmond.

The authors recently operated on 12 active acromegals via a transnasal, transphenoidal approach using the operating microscope. The patients fell into 3 groups: Group I—virgin previously untreated (5 patients); Group II—previous x-ray therapy (4 patients); Group III—previous surgery (3 patients).

Results suggest that with magnification microsurgery, patients with acromegaly who have not had previous surgery can have complete tumor removal with pituitary function preservation and this may be the treatment of choice. The operative approach with intraoperative photography delineating tumor and gland will be demonstrated, and complete pre- and post-operative endocrine studies will be presented.

2:15 P.M.—THE NEUROSURGICAL APPROACH TO PAIN IN THE NECK, ARM AND HAND—Sponsored by Neurosurgical Society of the Virginias—Robert P. Singer, M.D., Richmond.

Neck, arm, and hand pain are common problems seen in the daily practice of all physicians. The differential diagnosis and management of these problems is concerned with the mechanical, physiological, and functional aspects of pain production. Some of the common problems include cervical disc disease, cervical spondylosis, hyperextension syndrome, thoracic outlet syndrome, and the carpal tunnel syndrome. The definition of these areas by physical examination, history, radiological studies, and electromyographic studies will be discussed.

2:30 P.M.—OCULAR MANIFESTATIONS OF ISCHEMIC CAROTID ARTERY DISEASE—William T. Humphrey, M.D., Norfolk.

This paper hopefully will appeal to the General Practitioner, Ophthalmologist, Internist, General Surgeon, Vascular Surgeon and Neurosurgeon. It presents slides of clinical material and statistics of various ocular manifestations of carotid artery disease. These will include (1) Amaurosis Fugax, (2) Ophthalmodynamometry, (3) Central retinal artery spasm, (4) Hollenhorst plaques, and (5) Branch vein occlusion.

The early detection and elimination of precerebral vascular accident disease will be described and specific recommendation for diagnosis and treatment of carotid artery disease will be given.

2:45 P.M.—ASSESSMENT OF MYOCARDIAL CONTRACTILITY FOLLOWING AORTA-CORONARY BYPASS GRAFTS—Hooshang Bolooki, M.D., and David D. Michie, Ph.D., Norfolk.

In order to assess the immediate effects of aorta-coronary bypass grafts on myocardial contractility, studies were made of 9 patients with severe occlusive disease of the right and left coronary arteries. These data indicate that sudden cessation of blood flow through the aorta-coronary bypass graft(s) is deleterious to myocardial contractility in those patients with a normal range of control Vmax (extrapolated maximal velocity of contractile elements shortening) readings.

3:00 P.M.—PRE-HOSPITAL EMERGENCY CARDIAC CARE IN VIRGINIA BEACH—A VOLUNTEER PROGRAM—W. A. Dickinson, M.D., and J. P. Charlton, M.D., Virginia Beach.

Over 60% of deaths from acute myocardial infarction occur outside of hospitals and in the absence of optimal medical care. Through a grant by the Virginia Regional Medical Programs, a pilot program utilizing volunteer rescue squadsmen has been organized in the City of Virginia Beach leading to the establishment of an effective program for pre-hospital emergency cardiac care. This paper describes this experience to date and the procedure a community might follow in trying to establish a program of its own.

3:15 P.M.—Question and Answer period.

3:30 P.M.—Adjourn.

## SPECIAL EVENTS

### SATURDAY, OCTOBER 20

Virginia Diabetes Association

7:30 A.M.—Breakfast (Nansemond Room)

Virginia Flying Physicians Association

1:00 P.M.—Luncheon (Suite 700/701)

Virginia Academy of Family Physicians

1:00 P.M.—Luncheon (East Ballroom)

American College of Radiology, Virginia Chapter  
1:00 P.M.—Luncheon (Civic Room)

House of Delegates, The Medical Society of Virginia

3:00 P.M.—(James-Elizabeth Rooms)

The Medical Society of Virginia

7:00 P.M.—Reception (Portsmouth-Virginia Beach Rooms)

8:00 P.M.—Banquet (Ballroom-East and West)

## SUNDAY MORNING, OCTOBER 21

9:00 A.M.

### General Session—PORTSMOUTH-VIRGINIA BEACH ROOMS

Alvin E. Conner, M.D., Manassas, Presiding.

9:00 A.M.—LIFE THREATENING BEHAVIOR: SUICIDE, HOMICIDE AND DRUG ADDICTION. ARE THEY THE PHYSICIAN'S RESPONSIBILITY? —John Buckman, M.D., Charlottesville.

There is evidence of an increase in self-destructive behavior—especially among the young members of the community. This is illustrated primarily by the increase in suicides, accidents, violence and drug addiction. The problem is especially acute among adolescents. The medical profession by itself obviously cannot deal with all of these and the answer must come from collaboration with all other social agencies as well as from better understanding of the motivation for self-destruction.

9:45 A.M.—Question and Answer period.

10:00 A.M.—PSRO—An up-to-date report. Sponsored by Virginia Society of Internal Medicine.

James C. Respass, M.D., Charlottesville, will be the principal speaker. A special panel of resource personnel, headed by Robert L. Keeley, M.D., Roanoke, will support Dr. Respass and be available for questions and answers.

12:00 Noon—Adjourn.

## SPECIAL EVENTS

### SUNDAY, OCTOBER 21

The Medical Society of Virginia

7:30 A.M.—Prayer Breakfast (James-Elizabeth Rooms)



## SCIENTIFIC EXHIBITS

### Norfolk Room

**MANAGEMENT OF COLONIC POLYPS WITH THE COLONOSCOPE**—Mark Greenspan, M.D., James S. Berger, M.D., Theodore Adler, M.D., and Ira Miller, M.D., Norfolk.

This exhibit will detail the management of colonic polyps using the flexible fiberoptic colonoscope. X-ray and photographic illustrations of actual case histories will be presented.

**SURGICAL TREATMENT OF THE RHEUMATOID HAND**—James Carraway, M.D., Charles Horton, M.D., Jerome Adamson, M.D., and Richard Mladick, M.D., Norfolk.

The purpose of this exhibit is to demonstrate the use of surgery as an adjunctive measure in the treatment of severely crippled hands which have resulted from rheumatoid arthritis.

**PROBLEM-ORIENTED MEDICAL RECORD CONCEPTS**—Richard S. Easton, M.D., Norfolk.

The purpose of this exhibit is to demonstrate that the concept of the problem list as used in the problem-oriented medical records is a simple concept (i.e., Table of Contents) with which we are all familiar.

**PROBLEMS IN AORTO-ILIAC-FEMORAL OCCLUSIVE DISEASE RECONSTRUCTIVE SURGERY**—Levi Old, Jr., M.D., and T. Lane Stokes, M.D., Norfolk.

A pictorial review of 15 years private practice and resident training experience in five Tidewater, Vir-

ginia, hospitals with aorto-iliac-femoral occlusive disease arterial reconstructive surgery.

**PSYCHOTIC CHILDREN**—Walter Draper, M.D., Richmond.

Thirty to sixty minute video tape of psychotic children. The tape will be the diagnosis of psychosis in childhood with clinical illustration on tape.

**RECONSTRUCTION FOLLOWING SURGERY FOR BREAST CANCER**—Stanley M. Hirschberg, M.D., Norfolk.

**RECENT SCIENTIFIC ADVANCES IN VENEREAL DISEASE CONTROL**—Harry S. Wise, M.D., and Harry Pariser, M.D., Norfolk.

Panels highlighting more recent diagnostic and treatment aids in gonorrhea.

**BLOOD AND BLOOD COMPONENTS AND ITS SCIENTIFIC USES**—Fairfax Hospital Blood Bank, Falls Church.

Posters designating all of the components made from whole blood. Examples of the components are provided.

**EMERGENCY CORONARY CARE PROGRAM**—W. A. Dickinson, M.D., Co-Director, Emergency Coronary Care Program, Virginia Beach.

This program is the first of its kind in the State and it should be of great help to those interested in establishing similar programs. Teaching and therapeutic equipment, including a manikin used for training in defibrillation of the heart, will be on display.

## TECHNICAL EXHIBITS

### Mezzanine and Norfolk Room

**ABBOTT LABORATORIES**, North Chicago, Illinois  
**AMERICAN MASSAGE, INC.**, Lighthouse Point, Florida

**BIOMEDICAL LABORATORIES, INC.**, Richmond

**BLUE SHIELD OF VIRGINIA**, Richmond

**BRISTOL LABORATORIES**, Syracuse, New York

**CIBA PHARMACEUTICAL PRODUCTS**, Summit, New Jersey

**COMMERCIAL INSURANCE COMPANY**, Roanoke

**DAVID A. DYER & ASSOCIATES**, Roanoke

**ENCYCLOPAEDIA BRITANNICA**, Chicago, Illinois

**C. B. FLEET COMPANY, INC.**, Lynchburg

**GENERAL MEDICAL CORPORATION**, Richmond

**ERNEST H. GREENE COMPANY, MEMOCORD DICTATION SYSTEMS**, Richmond

**LAKESIDE LABORATORIES, INC.**, Milwaukee, Wisconsin

**ELI LILLY AND COMPANY**, Indianapolis, Indiana

**MEAD JOHNSON & COMPANY**, Evansville, Indiana

**WM. P. POYTHRESS & CO., INC.**, Richmond

**A. H. ROBINS COMPANY, INC.**, Richmond

**SANDOZ PHARMACEUTICALS**, East Hanover, New Jersey

**W. B. SAUNDERS COMPANY**, Philadelphia, Pennsylvania

**THE ST. PAUL COMPANIES**, St. Paul, Minnesota

**STUART PHARMACEUTICALS**, Wilmington, Delaware

**SUTER ASSOCIATES**, Arlington

**THOMSON AND McKINNON AUCHINCLOSS, INC.**, Washington, D. C.

**TRAVELERS INSURANCE COMPANIES, MEDICARE CLAIM DEPARTMENT**, Richmond

**VIDEO COMMUNICATIONS ASSOCIATES, INC.**, Washington, D. C.

# DELEGATES TO THE 1973 MEETING THE MEDICAL SOCIETY OF VIRGINIA

Where no name is listed it is indicative that no delegate or alternate was reported in time for publication.

*Delegates*

*Alternates*

*Delegates*

*Alternates*

## ACCOMACK

Dr. W. A. Eskridge

Dr. D. F. Fletcher, Jr.

## ALBEMARLE

Dr. T. S. Edwards

Dr. C. H. Gleason

Dr. F. E. Taylor

Dr. M. S. Wheby

Dr. A. W. Wyker

Dr. J. S. Davis, IV

Dr. R. W. Garnett, Jr.

Dr. C. F. Hunt

Dr. L. B. McGuire

Dr. H. D. Smallwood

## ALEXANDRIA

Dr. W. E. Baker

Dr. H. H. Ferrell

Dr. B. L. Gilmore

Dr. H. C. Kuykendall

Dr. L. N. McKnelly

Dr. C. J. Murphy, Jr.

Dr. R. H. Anderson

Dr. J. E. Gibson

Dr. M. H. Kendrick

Dr. G. F. Miller

Dr. H. G. Thompson

Dr. B. H. Zeavin

## ALLEGHANY-BATH

Dr. C. F. Ballou

Dr. G. N. Chucker

Dr. L. R. Denius

Dr. William Ellis

Dr. W. C. Nunley

Dr. E. M. Bowles, Jr.

Dr. G. L. Fischer

Dr. J. P. Harnsberger

Dr. L. E. G. Mineiro

Dr. W. E. Vermilya

## AMHERST-NELSON

## ARLINGTON

Dr. W. D. Dolan

Dr. G. J. Fisher

Dr. T. L. Kelly, Jr.

Dr. R. P. Nirschl

Dr. B. C. Snyder

Dr. H. L. Bastien

Dr. J. C. Bucur

Dr. L. B. Burk

Dr. H. G. Hopwood

Dr. J. H. Judson

## AUGUSTA

Dr. T. L. Gorsuch

Dr. P. P. Powers

Dr. Malcolm Tenney

## BEDFORD

Dr. T. H. Jennings

## BOTETOURT

## BUCHANAN-DICKENSON

Dr. B. D. Berry

Dr. R. W. Hess

Dr. J. C. Moore

Dr. J. P. Sutherland

## CHARLOTTE

## CULPEPER

## DANVILLE-PITTSYLVANIA

## FAIRFAX

Dr. W. L. Bekenstein

Dr. C. B. Cook

Dr. T. M. Fulcher

Dr. Alan Mackintosh

Dr. J. E. Prominski

Dr. O. E. S. Stevenson

Dr. N. M. Tart

Dr. D. S. Thorn

Dr. R. L. Fields

Dr. F. G. Gentile

Dr. I. D. Godwin

Dr. H. E. Lane, Jr.

Dr. A. S. Lineberger, Jr.

Dr. W. J. Reardon

Dr. T. M. Wright

## FAUQUIER

## FLOYD

Dr. L. V. Marshall

Dr. F. C. Bedsaul

## FREDERICKSBURG

Dr. F. B. Harrington

Dr. L. E. Southworth

Dr. D. W. Scott, Jr.

Dr. J. A. Trice

Dr. H. L. Westfall

Dr. W. D. Liddle, Jr.

Dr. F. A. Phillips

## HALIFAX

Dr. M. F. Durfee

## HAMPTON

## HANOVER

## PATRICK HENRY

Dr. H. S. Campbell

Dr. J. D. French

Dr. R. E. Herring, Jr.

Dr. B. C. Toms

## JAMES RIVER

Dr. C. R. Barton, Jr.

Dr. W. A. Pennington

Dr. R. N. Snead

Dr. W. S. Lloyd

## LEE

Dr. B. H. Owens

## LOUDOUN

## LOUISA

## LYNCHBURG

Dr. W. H. Barney

Dr. R. V. Crowder, Jr.

Dr. D. B. Hill

Dr. J. W. Stone

Dr. P. G. Dillard, Jr.

Dr. P. F. Fitzgerald

Dr. J. E. Mathias

Dr. W. E. Painter



*Delegates**Alternates**Delegates**Alternates***MID-TIDEWATER**

Dr. R. B. Bowles  
 Dr. P. L. Fisher  
 Dr. M. H. Harris  
 Dr. Paul Hogg  
 Dr. S. C. Olsson  
 Dr. W. C. Salley  
 Dr. A. L. VanName, Jr.  
 Dr. J. L. Wise, Jr.

Dr. B. S. Bennett  
 Dr. R. S. Brown  
 Dr. F. G. Diaz  
 Dr. H. W. Felton  
 Dr. W. H. Hosfield  
 Dr. H. B. Hudgins  
 Dr. A. J. Martin  
 Dr. S. N. Ransone

**NEWPORT NEWS**

Dr. M. L. Binder  
 Dr. F. G. Horne  
 Dr. J. T. Myles  
 Dr. H. L. Williams

Dr. R. J. Frank  
 Dr. W. H. Kretz  
 Dr. J. M. Quarles  
 Dr. W. H. Sipe

**NORFOLK****NORTHAMPTON****NORTHERN NECK**

Dr. J. K. Cunningham  
 Dr. H. W. Goode, Jr.  
 Dr. H. E. Kerr  
 Dr. P. C. Pearson

Dr. J. M. Booker  
 Dr. J. B. Davis  
 Dr. L. T. Griffith  
 Dr. H. E. Sisson

**NORTHERN VIRGINIA****ORANGE**

Dr. W. S. Grabeel

Dr. J. G. Bruce, Jr.

**PORTSMOUTH**

Dr. E. A. Barham, Jr.  
 Dr. Neil Callahan

Dr. L. L. Davis, Jr.  
 Dr. W. S. Terry

**PRINCE WILLIAM**

Dr. H. W. Coone

Dr. C. K. Hylton

**RICHMOND**

Dr. W. S. Beazley  
 Dr. W. E. Bundy, Jr.  
 Dr. C. M. Caravati, Jr.  
 Dr. C. L. Coleman  
 Dr. R. K. Duley  
 Dr. E. D. Farley  
 Dr. W. C. Gill, Jr.  
 Dr. W. H. Higgins, Jr.  
 Dr. W. R. Irby  
 Dr. J. J. Kelly, III

Dr. W. H. Atwill  
 Dr. H. A. Claiborne, Jr.  
 Dr. H. F. Conquest  
 Dr. F. S. Davis  
 Dr. S. W. Gayle  
 Dr. P. L. Goodman  
 Dr. J. S. Gregory  
 Dr. W. H. Harris, Jr.  
 Dr. R. A. Hoffman  
 Dr. D. W. MacMillan

Dr. E. C. Mathews  
 Dr. R. E. Mitchell, Jr.  
 Dr. T. W. Murrell, Jr.  
 Dr. Kinloch Nelson  
 Dr. D. S. Owen, Jr.  
 Dr. E. A. Talman  
 Dr. W. T. Thompson, Jr.  
 Dr. Percy Wootton

Dr. C. M. McCue  
 Dr. H. M. McCue, Jr.  
 Dr. L. E. Rennie  
 Dr. F. S. Royal  
 Dr. L. O. Snead, Jr.  
 Dr. R. V. Terrell  
 Dr. E. R. Trice  
 Dr. J. P. Wootton

**ROCKBRIDGE****ROCKINGHAM****SCOTT****SOUTHSIDE VIRGINIA****SOUTHWESTERN VIRGINIA**

Dr. F. S. Blanton, Jr.  
 Dr. D. M. Brillhart  
 Dr. T. P. Davis  
 Dr. L. E. Dunman  
 Dr. J. H. Early, Jr.  
 Dr. J. W. Giesen  
 Dr. G. Q. Gilmer  
 Dr. J. L. Givens  
 Dr. G. B. Kegley  
 Dr. C. D. Moore, Jr.  
 Dr. O. O. Smith, Jr.  
 Dr. W. B. Waddell  
 Dr. W. W. Walton

Dr. W. S. Barton  
 Dr. S. H. Catron, Jr.  
 Dr. L. E. Delap  
 Dr. W. C. Elliott  
 Dr. P. W. Fant  
 Dr. W. C. Grigsby, Jr.  
 Dr. P. C. Hendrix  
 Dr. M. G. Martin  
 Dr. J. E. Patterson  
 Dr. M. E. Scott  
 Dr. G. R. Smith, Jr.  
 Dr. J. A. Thompson, Jr.  
 Dr. C. Vuurmans

**STUART**

Dr. W. P. Massie

Dr. J. A. Kastretsios

**TAZEWELL**

Dr. M. E. Johnston

Dr. G. J. Schrader

**TRI-COUNTY****VIRGINIA BEACH**

Dr. F. K. McCune  
 Dr. T. J. Wakeman

Dr. J. P. Charlton  
 Dr. J. H. Trant, III

**WILLIAMSBURG-JAMES CITY****WISE**

Dr. F. S. Booth  
 Dr. J. M. Straughan

# Committee Reports

## AMA DELEGATES

The Medical Society of Virginia was represented at both the 1972 Clinical Session and 1973 Annual Convention of the American Medical Association. A full contingent of delegates and alternates attended all meetings of the House of Delegates.

These were record breaking sessions—with the largest business agendas in the long history of AMA. Issues ranged from PSROs and wage-price controls to institutional licensure and the need for more primary care physicians. It is especially interesting to note that the House, during its most recent meeting in June, was in session for a total of 18 hours 51 minutes—during which time it acted on 84 reports and 179 resolutions! Since these actions have been reported in detail in various medical publications, we will not repeat them at this time.

We do, however, wish to report that your Virginia delegation introduced a resolution having to do with specific criteria for prospective admissions of Medicare and Medicaid patients. You will recall that such a resolution was directed by our own House of Delegates at the request of the Fairfax County Medical Society. The AMA House accepted a Reference Committee recommendation that the Council on Medical Service study the problems presented by "prospective admissions" and "retroactive denials" and report its findings, conclusions, and recommendations at the 1973 Clinical Convention.

Once again your Virginia delegation urges every Virginia physician to attend meetings of the AMA House of Delegates and learn firsthand how AMA so effectively represents the profession.

ALEXANDER McCausland, M.D.  
WILLIAM R. HILL, M.D.  
W. CALLIER SALLEY, M.D.

## EXECUTIVE VICE PRESIDENT

The past twelve months have been unique in the history of The Medical Society of Virginia—unique in that they have represented a blending of past, present and future. The past was continuously in our minds as the Society's performance, purposes, by-laws and structure were thoroughly reviewed.

The present was—and is—always with us as we constantly try to serve and meet the needs of the membership—providing those services which only a professional association such as ours can make available to individual members. This is illustrated quite vividly in the 1,500 requests for personal services received—and processed—during the year.

The future has occupied our thoughts as never before—and the result has been countless hours and days of planning and research on matters which have cast giant shadows over medicine's embattled domain.

The matters to which we refer are PSRO, continuing education, professional liability and legislation. Those

four subject areas might very well be a modern version of the four horsemen of the apocalypse—at least there are those who think so. They really are not all that terrible, but they do pose problems never before encountered by Virginia physicians and present a challenge which should stir the interest, imagination, and most of all, the determination of every member of the Society.

Every physician in our State owes a sincere vote of thanks to Dr. Keeley and his hard working Committee on Peer Review—a dedicated group which gave more than a few weekends to the task of designing a proposed plan for a Virginia PSRO. This was no small thing when one considers the need of coming up with a plan which would comply with the requirements of PL 92-603, while at the same time winning the approval of the medical community. The Committee believes it has done just that, and it will be up to the House of Delegates to say yes or no.

The professional liability situation continues to occupy the attention of your officers and Council and at least two committees. Although The Medical Society of Virginia's plan can boast the tenth best premium structure in the nation, there are indications that our experience might well worsen in the months ahead. Premium rates are increasing—but out of absolute necessity. The program is a good one—with 98 percent of the membership participating—but it simply cannot operate with an unacceptable loss ratio.

As this report is written, your Society is exploring a number of possible solutions to the malpractice problem—including a new arbitration approach. We will see that you are kept informed.

These are the days when continuing education seems uppermost in everyone's mind. The next few months will certainly bring new developments and possibly decisions of a far reaching nature. For example, will the physicians of Virginia support a proposal to relate continuing education to Society membership? Frankly, we don't know, but we are quite positive that a forward looking program of some kind will soon be adopted and implemented. Should there be any who believe that such things come easy—just ask any member of the Committee on Medical Education! That committee has labored long and hard to develop and recommend a program which will be second to none.

That brings us to legislation and the Society's all out effort to develop an effective program—based on improved liaison with the General Assembly. To accomplish this objective, we must acquire the capability to quickly and effectively screen the great multitude of bills of interest and importance to the profession. Over 300 were introduced in 1972 and almost 200 during the so-called "short session" of 1973! Thus, we must develop the ability to present medicine's side of every question—clearly and convincingly. We must be able to provide the various committees of the House and Senate accurate testimony—delivered by able and articulate physicians. But most important, we must develop



an effective, hard hitting legislative program within each component society—the true source of legislative strength and effectiveness.

For the first time in your Society's history, your Legislative Committee has been working right on through the year—reviewing the record of the last two sessions of the General Assembly and planning for 1974. One result of this effort will be a special legislative package for the House of Delegates. The time to take a stand on all matters affecting medicine is now.

Since it is obvious that the report of your Executive Vice President can only deal rather sketchily with just a very few of those matters he considers most important, let us move along and take a very quick look at those things having to do with the Society's day to day operation.

**President and Council**

There is little doubt but that The Medical Society of Virginia owes an apology to the good citizens of Wytheville for being so demanding where the services of Dr. Stark are concerned. Here is a physician who has accomplished the impossible task of serving as President of The Medical Society of Virginia, President of the Virginia League of Municipalities, Mayor of his city and—at the same time—serving his community as a family physician! And—he has done all this at a time when medicine is grappling with problems never before encountered. These are problems which—depending upon our answers—will shape the future of the medical profession for years to come. If you say one man could not possibly do all this, you are wrong. Dr. Stark has done it, but only by driving himself at a punishing pace and refusing to slow down when he had every right to do so. Lesser men would have crumpled under the load. The drive and determination of this president have left us awed and amazed. He not only has won our everlasting gratitude but our heartfelt admiration as well.

Council will have held five meetings by the time of the Annual Meeting and it could well be that bimonthly sessions will be required in the future. A report of Council's actions will be presented to the House.

**Membership**

Our membership totals continue to increase—a fact of which we are very proud. If it is true that “there is strength in numbers”, then The Medical Society of Virginia is stronger now than at any time in its history.

July 31, 1972		4,147
New members	370	
Reinstated	25	
Increase	—	395
Deaths	41	
Resigned	30	
Dropped	51	
Decrease	—	122
Net Increase		273
July 31, 1973		4,420

**AMA Membership**

Recent reports from AMA indicate that Virginia leads the entire nation in the percentage of AMA members gained during the year. While this is quite encouraging, it is still not good enough. A society with well over 4,000 members should have at least 3,500 AMA members and, frankly, we are running far off the pace. Our big objective at this time is to qualify Virginia for a fourth AMA Delegate—and thereby gain more representation during these years of key decisions.

Won't you help us reach that goal?

**Finances**

This has been quite a year—especially from the financial point of view. Your society is doing more, accomplishing more, and spending more! This year's expenditures will certainly be the highest in the Society's history. Needless to say, we had no choice in the matter. There was a job to be done and the bill had to be paid. With PSRO and a multitude of other projects practically upon us, it is becoming more and more apparent that our budgets and income of the past several years will no longer be adequate for the future. Consequently, it could well be that the House will be requested to seriously consider the advisability of authorizing a moderate dues increase.

Now, all this does not mean that the Society is not in good financial condition. The truth is that we are in excellent shape and fully prepared to face what promises to be a challenging future. But—our expenditures this year will probably exceed our income and deficit spending is not to our liking. Thus, it behooves the House to take a long, hard look at the overall situation and determine where we go from here.

**Personnel**

There have been no changes in your state office staff during the year. It is apparent, however, that a staff reorganization will be necessary if we are to do the job expected and desired by the membership. A proposal for such a reorganization has been reviewed and approved by Council and we hope that it will not be too long before our staff will possess the capability to handle any and all assignments.

The very fact that the staff, as now constituted, has been able to perform its task in a highly acceptable manner, is a tribute to its members. A sincere expression of appreciation is in order for Miss Watkins, Mrs. Stockmar, Mrs. Edmunds, Mrs. Hurt, Mrs. Moran, Mr. Moore and Mr. Osburn.

**Virginia Medical Monthly**

A combination of high quality articles and stimulating editorials have once again made the Virginia Medical Monthly one of the most readable publications of its kind in the nation. The fact that a journal of such quality can be produced month after month in the face of constantly increasing costs is in itself a tribute to the talent and experience of Miss Watkins, our Managing Editor. She constitutes a “staff of one”—something un-



known in these days—and we doubt seriously that another state society can make that statement.

### Committees

While most of the Society's 38 committees were active during the year, we wish to extend a special "thank you" to those which were required to deal with special problems. Examples are the Ad Hoc Committee on Peer Review, Advisory Committee of Past Presidents, Committee on Medical Education, Committee on Maternal Health, Liaison Committee to the Virginia State Bar, Committee on Legislation, Committee on Mental Health and the Committee on Ethics.

### Meetings

Once again our society was represented at many local, state and national meetings during the year. These included both sessions of the AMA House of Delegates, AMA Leadership Conference, National Rural Health Conference, National AMPAC Workshop, Annual Meeting of the Professional Convention Management Association, Conference of State Mental Health Committee Chairmen, State 4-H Club Awards Ceremony, Conference of State Society Presidents, several AMA conferences on PSRO, annual meetings of neighboring state medical societies, Annual Meeting of the Virginia Council on Health and Medical Care, meetings of 14 component societies and a number of others.

### Looking Ahead

It now seems quite clear that medicine in this great nation stands on the threshold of a new and different era—so new and different that it will test the will power and dedication of every physician. These are not ordinary days. Rather, these are days of change, adjustment and above all—decision. You are being asked to determine the future of your profession by your acceptance or rejection of proposals on such key issues as PSRO, continuing education, etc. The hour of decision is truly at hand—so let us close ranks, move forward and meet these issues head on—and together!

ROBERT I. HOWARD

### MEMBERSHIP

This has been a record breaking year for The Medical Society of Virginia where membership is concerned—and the end is not in sight. From all indications, 1973-74 could be the biggest yet.

Perhaps the biggest and best news of the year is the sizable gain made in AMA membership. Virginia has, for a good many years, lagged behind her sister states in this regard, but it now appears that the turning point has been reached. As a matter of fact, The Medical Society of Virginia actually led the entire nation in the percentage of new AMA members obtained during the year. But—despite this achievement, we still do not qualify for a fourth AMA Delegate. So, we must redouble our efforts. With your help, we can do it.

Your committee considers it a privilege to nominate our current president, Dr. Carl E. Stark, for honorary active membership in The Medical Society of Virginia.

With this nomination goes our thanks and appreciation of a job well done. His record speaks for itself and proves that the Society once again chose the right man for the right job at the right time.

RICHARD W. GARNETT, JR., M.D., *Chairman*

MARTIN LERNER, M.D.

GORDON G. NIDIFFER, M.D.

### PUBLICATION

The Virginia Medical Monthly is continuing the general policy it has followed in the past. The scientific articles have been good and increasing emphasis, of necessity, has been placed on political matters affecting the practice of medicine.

The advantages and disadvantages of "Professional Standards Review Organizations" will be discussed in the September issue of the journal. It is essential that the members of The Medical Society of Virginia be made aware of the significance of PSRO. This is especially true in the case of members of the House of Delegates who will deal with this matter during the October meeting of the Society.

The Publication Committee is happy to report the Virginia Medical Monthly is receiving its fair share of advertising, for this plays a major role in our budget. The State Medical Journal Advertising Bureau reported recently that the Virginia Medical Monthly stood tenth in the "page count of national ads" in the 43 state medical journals during 1972. We hope we have been able to better this standing during the current year.

HARRY J. WARTHEN, M.D., *Chairman*

### ETHICS

A number of matters were referred to your Committee this year, and one meeting was held in Richmond. Among those items requiring Committee action were: (1) itemized bills, (2) hospital reference directories, (3) legal responsibility in the treatment of accident patients, (4) refusal to accept patients under certain conditions, (5) dissemination of medical information to nonmedical practitioners, and (6) charges of unethical conduct by one physician against another. The fact that the Committee is being consulted more and more when such questions arise is a most encouraging sign.

We wish to take this opportunity to advise the membership that the Judicial Council of AMA recently reaffirmed its opinion that it is demeaning to the medical profession and unethical for a physician to permit use of his name and professional status in the promotion of commercial enterprises. We possess definite evidence of a break with this ethical tradition—a number of recent commercial advertisements carrying the names, photographs and professional appointments of physicians.

It is also the Committee's wish to urge all physicians to provide itemized statements upon request of their patients. We have been advised that the failure or refusal to provide such statements prior to payment of their bills have worked a severe hardship on many elderly patients. It would appear to be in the interest of all concerned to provide such statements unless there exist overriding reasons to the contrary.



Your Committee would leave with you this thought: When in doubt concerning the ethical aspects of a particular matter, don't take a chance. Write or call the State office and take advantage of the wealth of information available from that source. The few minutes it would take could very well save many hours of concern at a later date.

THOMAS M. FULCHER, M.D., *Chairman*  
HOWARD I. KRUEGER, M.D.  
WILLIAM H. HIGGINS, JR., M.D.

## LEGISLATIVE

One of the most important benefits of membership in The Medical Society of Virginia—intangible though it may seem—is its continuing effort on your behalf where legislation is concerned.

It will doubtless come as a surprise to learn that approximately 150 bills of interest to the profession were introduced during the 1973 session of the General Assembly. Keep in mind that this was the so-called "short" session of the Assembly. Our prediction is that the 1974 session will concern itself with at least 300 bills of interest to physicians.

Although space will not permit us to describe the 1973 bills in detail, we do present the following summary for your information.

### 1. ABORTION—BIRTH CONTROL—STERILIZATION

- SB 825      *Sterilization of mentally ill*—(Killed in Committee)
- SB 836      *Sterilization of persons under twenty-one—jurisdiction* (Killed in Committee)
- SJR 106     *Birth Control*—expressing sense of the General Assembly on population stabilization policy. (Killed in Committee)
- HB 76       *Minors not to be allowed to consent to sterilization.* (Enacted)
- HB 1698     *Liberalized abortion bill*—to conform to U.S. Supreme Court rulings. (Died—House Floor)
- HB 1752     *Sterilization of 18-year olds*—lowers from 21—medically incompetent. (Killed—House)
- HB 1801     *Changes punishment of abortions*—after 6 months of pregnancy. (Killed in Committee)

### 2. ALCOHOLISM—BLOOD ALCOHOL TESTING

- SB 574      *Rewriting the drunkenness laws and funding a new alcoholism program.* (Killed in Committee)
- SB 910      *Breath test*—to determine alcoholic content of blood. (Enacted)
- SJR 132     *VALC study the treatment of alcoholism.* (House and Senate agreed to)
- HB 1580     *Blood alcohol testing procedures, clarification change.* (Killed in Committee)
- HB 1683     *Blood alcohol testing*—refused comment. (Enacted)

### 3. AUTOPSY — CREMATION — DEFINITION OF DEATH

- H B 1252\*   *Certificate of Death*—Medical Examiner to view body before cremation. (Vetoed by Governor)
- HB 1253      *Who may authorize or consent to an autopsy before or after death.* (Enacted)
- HB 1727      *Definition of death.* (Enacted)

### 4. BLOOD BANKS—LABORATORIES

- HB 1352      *Consolidated Laboratory's services operational board members.* (Enacted)
- HB 1368\*     *Mandatory testing for infectious matter—commercial blood banks.* (Enacted)

### 5. CHILDREN

- SB 710\*      *Exceptions—preschool physical examinations.* (Enacted)
- SB 904       *Child abuse*—teachers to report. (Enacted)
- HJR 228      *VALC study of child abuse or neglect laws.* (Died—Senate Committee)
- HJR 252      *VALC study of child abuse.* (Died Senate Committee)
- HJR 270      *To study aspects of child labor laws.* (House and Senate agreed to)

### 6. DEPARTMENT OF CORRECTIONS

- SB 371       *Procedure for trying recidivists.* (Killed in Committee)
- SB 874       *Department of Corrections—physical examination of field unit transferees.* (Enacted)
- HB 777       *New Department of Corrections.* (Killed in Committee)

### 7. ECOLOGY

- SB 387       *To regulate and control ground water (well construction, drilling and artesian wells).* (Enacted)
- SB 791       *Solid waste disposal and powers of State Board of Health.* (Enacted)
- SB 899       *Mosquito control*—consolidation of districts. (Killed in Committee)
- SJR 98       *Memorializing the President of Congress to restore cuts in appropriations for certain pollution control grants.* (House and Senate agreed to)
- SJR 99       *Creating a commission to study water pollution.* (House and Senate agreed to)
- HB 642       *Providing for environmental policy, environmental protection establishing the Council on Environmental Quality.* (Killed in Committee)
- HB 1459      *Consolidation of mosquito control districts under city health departments.* (Enacted)

- HB 1677 *Air Pollution Control Board*—powers and duties—penalties. (Enacted)
- HB 1694 *Virginia State Water Well Board*—licenses required by contractor—prohibitions and penalties. (Killed in Committee)
- HJR 236 VALC study *vehicular noise pollution*. (Died—Senate Committee)

## 8. EMERGENCY CARE

- SB 794 *Emergency care*—exempting persons from liability. (Died—House Committee)
- SB 913 *Emergency services*—excluding salaried rescue squadsmen and firemen. (Died—House Floor)

## 9. HOSPITALS AND MEDICAL FACILITIES

- SB 108\* *Certificate of Need* for hospital additions and new construction Statement of reasons for denying staff privileges required. (Enacted)
- SB 827 To authorize *Medical Facilities Bonds*. (Enacted)
- HB 1230 Enlarging *Chesapeake Hospital Authority*. (Enacted)
- HB 1240 Effects *issuance of hospital authority boards*. (Enacted)
- HB 1527\* *State Hospitals*—liability for expenses of maintenance of patient. (Died—Senate Committee)
- HB 1655 *Medical facilities bonds*. (Killed in Committee)
- HB 1726 Dr. Reid's "open staff" hospital privileges. (Killed in Committee) *Added to SB 108 as amendment*.
- HB 1731 *Interstate development of medical facilities*—additional powers in such industrial authorities. (Enacted)

## 10. INSURANCE

- SJR 77 Memorializing the *Congress of the US* to desist from enacting legislation relating to "no-fault" insurance. (House and Senate agreed to)
- HB 337 *Williams no-fault insurance* (auto). (Killed in Committee)
- HB 535 Relating to provisions of law relating to *insurance subrogation rights*, forbidding subrogation rights for accident-sickness contracts (Blue Cross) to persons injured by third parties. (Enacted)
- HB 594 Relating to *right of subrogation* for medical payments benefits and registration of uninsured motorists. (Died Conference Committee)
- HB 1308 Expansion of *health insurance for State employees*—inclusion of full-time employees. (Killed in Committee)

- HB 1312 Expanding *State Health Insurance* coverage—residents and interns employed by MCV and UVA Hospitals. (Enacted)
- HB 1334 New *Williams no-fault insurance* bill. (Killed in Committee)
- HB 1538 *No-fault insurance*. (Killed in Committee)
- HB 1675 *State Health Insurance expansion*—public employee paid in part by State funds. (Killed in Committee)

## 11. MENTAL HEALTH

- HB 1196 Relating to appointment of members of community *mental health* and *mental retardation* services boards. (Killed in Committee)
- HB 1210 To require *Commissioner of Mental Hygiene and Hospitals* to provide for formal review of all patients in institutions controlled by State Hospital Board. (Killed in Committee)
- HB 1234 Relating to *consent by those under age*, mentally retarded or mentally deficient. (Killed in Committee)
- HB 1267 To change name of Department of Mental Hygiene and Hospitals, Commission of Mental Hygiene and Hospitals, and State Hospital Board. (Enacted)
- HB 1272 Relating to commitment of persons accused of crime to State hospitals for determination of mental capacity. (Time limit) (Enacted)
- HB 1333 Eliminates *directors of mental retardation institutions* from being physicians. (Enacted)
- HB 1335 Changing name of VAGP to VAFP in composition of MH and MR Professional Advisory Board. (Enacted)
- HB 1336 Fiscal agents of community *mental health* and mental health services boards. (Enacted)
- HB 1404 Mental health and mental retardation *sales tax exemption*. (Killed in Committee)
- HB 1526 *Department of Mental Hygiene and Hospitals*—business manager appointment. (Enacted)
- HB 1581 Proceedings for *involuntary admissions* to State hospitals. (Enacted)
- HB 1676 *Costs of involuntary admission to State hospitals*. (Killed in Committee)
- HJR 226 VALC study need for legislation for protection of *seriously impaired adults*. (Died—Senate Committee)

## 12. OPTOMETRY AND PSYCHOLOGY

- SB 804 Guidance and personnel psychologists—definitions and exemptions. (Killed in Committee)



- SB 824 *Optometrists* included in Blue Shield. (Killed in Committee)
- HB 1366 Requirement of *continuing education* for registered *optometrists*. (Died—Senate Committee)
- HB 1367 Waive written examination of State Board if National Board of *optometry exams* have been passed. (Enacted)
- HB 1412 *Optometrist or psychologist* to be paid directly by Blue Shield and other insurance carriers. (Enacted)

### 13. PHARMACY—DRUGS

- SB 482\* To create a somewhat “voluntary” formulary for equivalent drugs (Killed in Committee)
- SB 652 No medication profile records to be required by State Board of Pharmacy. (Killed in Committee)
- SB 793 *Obtaining controlled drugs by fraud, deceit and forgery*. (Enacted)
- SB 854 *Drug Abuse Council*—membership. (Enacted)
- HB 1186 Relating to when *search warrants* may be issued in certain cases. (Controlled substances) (Killed in Committee)
- HB 1192 Relating to *fraud, deceit and forgery in obtaining controlled substances*. (Killed in Committee)
- HB 1262 Changing penalties for violation of the *controlled substance act*. (Killed in Committee)
- HB 1279 To require *labeling of prescription drug* containers with certain information. (Killed in Committee)
- HB 1284 No presumption of *possession of drugs* from ownership or occupancy of premises. (Enacted)
- HB 1300 Providing for pharmacist helpers in State hospitals to administer drugs. (Enacted)
- HB 1433 Unlawful to inhale drugs—intent to become intoxicated, etc. (Enacted)
- HB 1448 *Drugs—confiscations* and forfeiture of property. (Killed in Committee)
- HB 1561 *Destruction of seized illegal drugs*. (Enacted)
- HR 1664 *Drug Property seizure*—Disposed of in same manner as transporting illegal alcoholic beverages. (Enacted)
- HB 1667 *Illegal drug storage*—deemed a common nuisance. (Enacted)
- HB 1668 *Illegal drug dispensing*—except as authorized in Drug Control (Enacted)
- HB 1737 *Drug treatment*—admission of addicts to certain facilities. (Killed in Committee)
- HB 1750 Adds hashish to *controlled drug list*. (Enacted)

- HB 1758 *Local drug laws*—provide for enactment and penalties for violation. (Killed in Committee)
- HB 1811 *Marijuana* fine—\$1,000.00. (Killed in Committee)
- HJR 216 Department of Welfare & Institutions to continue *study* of treatment of drug addicts. (House and Senate agreed to)
- HJR 239 Department of Welfare & Institutions continued study for *treatment of drug addicts*. (Died Senate Committee)

### 14. PHYSICIANS ASSISTANTS

- SB 665\* Changes in Medical Practice Act by State Board of Medical Examiners pertaining primarily to *physicians' assistants*. (Enacted)
- HB 901 Relating to authorization for those *assisting physicians* to render certain services. Carried over from 1972. (Killed in Committee)
- HB 1298 Providing for *physicians' assistants*. (Killed in Committee)
- HB 1451\* *Nurse Practitioner bill*—expanded authority to be given by joint action of Board of Medical Examiners and Board of Nursing. (Enacted)
- HB 1722 Certain customary activities of physicians' office employees sanctioned. (Enacted)
- HJR 262 VCU study of *medical assistants*. (Died in Committee)

### 15. PROFESSIONS AND OCCUPATIONS

- SB 594\* Imposing moratorium on legislation *regulating professions and occupations*. (Died—Senate Committee)
- SJR 75 Directing VALC to continue study of *laws regulating professions*. (House and Senate Agreed to)
- HB 1228 Virginia Association of Professions *competitive bidding bill*. (Killed in Committee)

### 16. SAFETY

- SB 656 Relating to use of *safety glazing material* in certain buildings. (Enacted)
- SB 708 Penalties for not wearing *seat belts*. (Killed in Committee)
- SB 767 *Seat belts*—use of when vehicle is in motion—unlawful to remove (Killed in Committee)

### 17. SICKLE CELL ANEMIA

- SB 901 *Sickle cell anemia*—programs to detect. (Enacted)
- HB 1295 Removing mandatory aspect of *sickle cell anemia testing* and keeping results confidential. (Killed in Committee)

## 18. VACCINATION

- SB 245 Required *private school vaccination*. (Died—House Committee)
- HB 1220\* Eliminates *compulsory vaccination* from code provisions on education. (Enacted)
- HB 1317 Eliminates compulsory vaccination from Code provisions on education. (Killed in Committee)
- HB 1375 Public school *immunizations*—changing word vaccination to immunization. (Killed in Committee)

## 19. WORKMAN'S COMPENSATION—HANDICAPPED—AGING

- SB 580\* Relating to *reimbursement of parents for education of handicapped children in private schools*. (Died—House Committee)
- SB 587\* Relating to *special license plates for handicapped persons*; parking privileges, penalties for violations. (Enacted)
- SB 676 *Special license plates for handicapped persons*. (Killed in Committee)
- SB 695 Including judges, clerks of courts in *State health insurance and workman's compensation*. (Killed in Committee)
- SB 704 Reimbursement for *tuition costs of handicapped children in schools*. (Enacted)
- SB 860 *Schools for handicapped* — exempted from certain regulations. (Enacted)
- SB 903 *Occupational diseases* — pneumoconiosis. (Enacted)
- SJR 100 *Workmen's Compensation*—public disability income protection and public disability medical protection. (House and Senate agreed to)
- SJR 116 *Cystic Fibrosis*—Department of health study for treatment and care over the age of 21. (House and Senate Agreed to)
- HB 938 Amendments to Workmen's Compensation Act relating in part to *occupational loss of hearing*. (Killed in Committee)
- HB 1139 Relating to *Virginia Commission for Visually Handicapped* and aid to blind and social service programs. (Killed in Committee)
- HB 1182 To authorize *Commission for Visually Handicapped* to delegate certain duties on appeals and reviews. (Enacted)
- HB 1200\* Relating to powers and duties of Division of State Planning and Community Affairs with respect to *aging persons*. (Enacted)
- HB 1221 Creating a Division of State *Gerontology*. (Killed in Committee)
- HB 1534 *Handicapped voters* — special polling places. (Killed in Committee)

- HB 1697 Payment rather than reimbursement of *handicapped tuition fees* in private schools. (Died—Senate Committee)
- HB 1700 *Health services to acutes*—definition of terms. (Enacted)
- HJR 175 Creating a commission on *needs of elderly Virginians*. (House and Senate agreed to)

## 20. MISCELLANEOUS

- SB 834 *Sales tax*—Hearing aid dealers prescriptions exempted. (Killed in Committee)
- HB 1164 To classify *Virginia Academy of Family Physicians* as a charitable organization, to exempt its property from taxation. (Killed in Committee)
- HB 1199 Relating to cards for *anatomical gifts* (identification cards carried on person). (Killed in Committee)
- HB 1507\* *Nursing Home Administrators*—continuing education—suspensions, revocation or denial of license. (Enacted)
- HB 1854 Localities to supplement *SHD health salaries*. (Killed in Committee)

Should any member wish more detailed information on any of the bills mentioned above, all he need do is contact Willard C. Osburn at Society Headquarters. Mr. Osburn maintains a complete file of legislative material and stands ready to assist the membership in every possible manner.

\* Denotes amendments.

WILLIAM A. PENNINGTON, M.D., *Chairman*  
 W. LEONARD WEYL, M.D.  
 CHARLES A. YOUNG, M.D.  
 LEROY SMITH, M.D.  
 GLENN B. UPDIKE, M.D.  
 RUSSELL BOWERS, M.D.  
 A. EPES HARRIS, M.D.  
 MALLORY S. ANDREWS, M.D.  
 CLARENCE TAYLOR, M.D.

## PUBLIC RELATIONS

Although no formal meetings of the Committee were held during the year, your Chairman and Director have cooperated in attempting to provide a most active program for the Society.

Mr. Osburn represented the Committee on Rural Health at the 4-H Club Health Award Ceremony in Blacksburg and presented the winners with their certificates and prizes. As during the past 15 years, the Society made a contribution to this program and it continues as one of our very best PR projects.

Your Chairman, along with Mr. Osburn, attended the 1973 AMA Communications Clinic in Chicago. Many excellent ideas concerning future programs were discussed and several have been taken under consideration. We would again like to urge that every component medical society be represented at these clinics.



The Society is still active in co-sponsoring spot TV announcements on prenatal care which are now being shown throughout the State. These were developed with the cooperation of the State Health Department.

Another very important project of this Committee is rendering assistance to the Virginia Chapter of the American Association of Medical Assistants—a most worthwhile organization. It is this group which helps the physicians of Virginia maintain efficiency in their offices as well as the good will of their patients. Your Chairman and Mr. Osburn have attended the Board meetings of the Virginia Chapter during the past year and also attended the Annual Scientific Assembly at the Boar's Head Inn in Charlottesville. This was perhaps the best attended and most successful meeting the Virginia Chapter ever held. The Committee again urges all members to encourage their office personnel to join the medical assistant movement and assist whenever possible with financial aid as well as granting time off to attend the various meetings. It would be a most worthwhile investment.

The Committee would like to congratulate the Norfolk County Medical Society on their PR efforts with the local news media. An "Encounter" is held annually with invitations extended to all members of the media and the PR committee of the society. The program consists of a social hour, dinner and brief program consisting of an exchange of views and suggestions as to how to assist one another in improving communications and getting the news to the public. These efforts have led to the adoption of a Code of Cooperation which has improved relations between the two tremendously.

The Council of the Society has approved an appropriation in support of the MEDEX-TV series which has been developed by the Los Angeles County Medical Society. The series consists of TV motion pictures which are of top quality in every way and particularly desirable from the public relations point of view. The appropriation is contingent on the assurance that the films will be televised in Virginia after additional financial support has been received from other sources. If successful, this investment will repay the Society many times over the amount of its contribution.

Through a joint effort of the Lynchburg Academy of Medicine's Public Relations and Medicine and Religion Committees—there has been brought about what is considered to be a "first"! They have established a new TV station WORD at the Lynchburg General Hospital. The station provides the hospital with spiritual music and programs—24 hours a day. The new spiritual health care service originates from the television station located in the Hospital's chaplaincy department. All programs are aired over Channel 4 and are available on patients' sets which are rented from the Woman's Auxiliary. The station was designated WORD because of its purpose of proclaiming the Word of God. The maintenance staff constructed the studio from available material and most of the equipment is on loan from local and other firms. The project has met with a great deal of enthusiastic success.

Your Chairman spoke to the Roanoke Chapter of the Virginia Society of Certified Public Accountants on behalf of the Virginia Association of Professions. The

Association is made up of members of eight professions and deals with matters affecting the various professions—providing the means by which its members can carry on a continuing dialogue which is certain to benefit not only their members, but state and local governments as well. It provides the instrument for putting 30,000 dedicated and well informed citizens under one banner, and it doesn't take a great deal of imagination to realize the tremendous force for good that its number represents. The Committee highly recommends the participation of all members of the Society in this most worthwhile organization.

Communications between State Headquarters and the major metropolitan area news media have increased favorably during the past year. Many inquiries have been made concerning the major news stories pertaining to the Society's views and positions, with favorable results as a whole. The Committee certainly recommends that each component PR committee will strive to offer improved cooperation with the news media so that both the public and the medical profession will benefit from these efforts.

JOHN WYATT DAVIS, JR., M.D., *Chairman*  
THOMAS H. JENNINGS, M.D.  
ARMISTEAD M. WILLIAMS, M.D.  
RUSSELL D. EVETT, M.D.  
HAROLD I. NEMUTH, M.D.  
DONALD S. THORN, M.D.

## INSURANCE

As one might expect, professional liability continues to occupy the spotlight where this Committee is concerned. With approximately 98% of our membership participating, we are determined that the Society's program will always be the very best that can be provided. As this report is written, we rank among the 15 best in the Nation with respect to premium rates.

The overall outlook, however, is far from bright. Even here in Virginia, where we have always felt a bit more secure than most places (witness recent verdict of \$4,025,000 in California), the number of suits—potential and otherwise—continues to climb. As a result, our excellent experience of just a few years ago has taken on a new and ominous look. The program's loss ratio is such that an overall premium increase of approximately 40% is indicated. Such an increase has been approved by both your Committee and the State Insurance Commission and its implementation will depend in large part on Phase IV of the wage-price controls.

Your Committee is constantly seeking new and more effective methods by which the professional liability situation can be controlled. Although the Joint Panel for Screening Medical Malpractice Cases is extremely busy, it can hear only a very small percentage of the cases which exist over the State. We do know that the St. Paul Company is quite interested in the possibilities associated with some forms of arbitration and we expect to learn more about the subject within the next few weeks.

Your Committee wishes to assure the membership that the current premium rate structure of the professional liability program is realistic and justified.



The Society's other insurance programs are progressing nicely and efforts are being made to upgrade them whenever possible. For example, a request was recently received for the Committee to consider obtaining an increase in the ceiling of our Blue Shield Major Medical Plan. The Committee will certainly take this request under consideration at its very next meeting.

The membership is invited to contact the Committee concerning any thoughts or suggestions it might have with reference to new or existing programs. Our goal is to make available the finest group of programs obtainable on today's market at the lowest possible cost to you.

A. L. HERRING, JR., M.D., *Chairman*  
CHARLES W. ANDERSON, M.D.  
C. W. CARTWRIGHT, M.D.  
JOHN W. GIESEN, M.D.  
THOMAS L. LUCAS, M.D.  
JOHN M. MILLER, JR., M.D.  
DAVID V. STRIDER, M.D.

### MEDICAL EDUCATION

A meeting of the Education Committee was held on February 22, 1973, with eleven members present. A review of continuing education was discussed in great detail. The committee felt that it was time for the Committee and the Society to take some type of stand on continuing education for relicensure, or for membership in The Medical Society of Virginia. The statement prepared by the Virginia State Board of Medicine at its meeting in December of 1972 was presented. Following this a motion was made and seconded and passed that the concept of continuing education as a prerequisite for relicensure be approved by the committee and that the following statements of policy be recommended to Council:

- (1) Documentation of continuing education should be a requirement for licensed practitioners in the State of Virginia.
- (2) Continuing education requirements should be similar to those outlined by the American Medical Association Physician's Award Program.

The motion was adopted by the Committee.

Following this a subcommittee was formed to prepare a program for continuing education. A survey on the amount of continuing education now done by M.D.'s in Virginia was approved and mailed by the Virginia State Board of Medicine to all licensed M.D.'s in the State. Seventy four hundred questionnaires were mailed with a return of about sixty per cent.

The subcommittee appointed to draft a program for continuing education had a subsequent meeting. At this time a draft of a proposal was presented by Dr. Pinson Neal. At this meeting, also, Mr. Alfred McCauley of Natresources, Inc., presented a draft of a proposal of a skeleton model as a framework for carrying out continuing education by the State Medical Society. The subcommittee recommended to Mr. McCauley that he prepare a final draft of such a model to be presented to Council and the House of Delegates at its fall meeting.

This has not been received at the time of this report, July 25, 1973.

The report of the Committee on Education was presented to Council at its April meeting. At the meeting the report of the committee was approved by a vote of eight to six with the recommendation that it be submitted to the House of Delegates for action.

At the meeting of Council in July a resolution adopted by the Virginia State Board of Medicine at its June meeting was presented. It read as follows:

WHEREAS it is the belief of this Board that in order to maintain the standard of medical care that the citizens of the State of Virginia have been given, and

WHEREAS it is the Board's opinion that continuing medical education is necessary to maintain such standards,

Now therefore, BE IT RESOLVED that legislation be requested to authorize the Board to establish continuing education as a condition of relicensure of all persons licensed by the Board, such requirements to be established in cooperation with respective professional associations represented on the Board, and that prior to refusal to relicense the Board shall request the recommendation of the appropriate professional association.

Following this and after much discussion, Dr. Hotchkiss moved that Council reconsider its action of April 8th in which it approved its statement that documentation of continuing education should be a requirement for licensed practitioners in the State of Virginia. The motion by Dr. Hotchkiss now recommended that continuing education rather be made a requirement for membership in The Medical Society of Virginia. This motion was seconded and passed after much discussion.

It was then recommended that the President write the President of the Virginia Board of Medicine and advise him of Council's action. The letter would also contain a request that the Board of Medicine take no further action until after the House of Delegates has met in October.

GEORGE J. CARROLL, M.D., *Chairman*  
F. H. MCGOVERN, M.D.  
J. POWELL ANDERSON, M.D.  
CHARLES E. DAVIS, JR., M.D.  
JOHN C. HORTENSTINE, M.D.  
M. PINSON NEAL, M.D.  
HANNIBAL E. HOWELL, M.D.  
ROBERT L. HOWARD, M.D.  
T. WINSTON GOULDIN, M.D.  
FITZHUGH MAYO, M.D.  
MICHAEL J. MOORE, M.D.  
WILLIAM H. PIFER, M.D.  
MARCELLUS A. JOHNSON, M.D.  
ROBERT T. MANNING, M.D.

### MEDICINE AND RELIGION

The Medicine and Religion Committee met once during the past year and wishes to submit the following minutes for your interest and information.

A meeting of the Committee on Medicine and Religion was held at Society Headquarters on May 30, 1973,



at 2:00 p.m. Attending were: Dr. Bernard H. Kasinoff, Chairman, Dr. James B. Bain and Dr. Russell G. McAllister.

Dr. Kasinoff reviewed the activities of the Committee over the past several years. Brought out was the fact that The Medical Society of Virginia and the American Medical Association have co-sponsored a symposium on medicine and religion for the past three years at the Portsmouth Naval Hospital. He went on to review the annual Regional Workshop held in Atlanta for the Southeastern States. The Workshops are attended by state chairmen and Society staff members for the purpose of reviewing their activities during the year. The Regional Workshops have proved most successful and provide an excellent means for the exchanging of ideas among various states.

Dr. McAllister mentioned the fact that Dr. John Wyatt Davis has been directly responsible for implementing closed circuit television programs of a religious nature in a Lynchburg hospital. The programs are shown on a twenty-four hour basis relating to a variety of subjects, and are very well received by the patients. The Secretary was instructed to contact Dr. Davis for detailed information and distribute the findings to the Committee.

Dr. Kasinoff advised the Committee that Council was most interested in pursuing the possibility of having a prayer breakfast during our Annual Meeting this year. It was pointed out that since this year's meeting would run from Thursday through Sunday it would be most appropriate to organize a prayer breakfast on the last day of the meeting. After further discussion, a motion by Dr. McAllister to sponsor the breakfast was seconded and carried.

There was considerable discussion concerning the format of the breakfast program and it was suggested that in addition to physician participation, a minister be invited as the guest speaker. The Committee approved the general format of the 1971 prayer breakfast and recommended that the Society publicize the program through its newsletters and an article in the Virginia Medical Monthly. Separate programs would also be printed and mailed to the membership of the Society prior to the Annual Meeting scheduled October 18-21.

The main theme for the prayer breakfast was discussed and it was decided that "The Role of the Spiritual Aspects in the Practice of Medicine" would be the topic.

BERNARD H. KASINOFF, M.D., *Chairman*  
JUAN M. GONZALEZ, M.D.  
JAMES B. BAIN, M.D.  
KENNETH COOPER, M.D.  
RUSSELL G. McALLISTER, M.D.  
ORLANDO SALLINAS, M.D.  
JOSEPH A. SOLOMON, M.D.

#### HEALTH CAREERS

This Committee was organized to work with the Health Careers Program of the Virginia Council on Health and Medical Care. During the past year this program was presented in 225 schools to an audience of 53,100 students, most of whom were in high school.

Requests for additional information were received from 2,776 students, 637 of whom requested more data on medicine as a career.

The Committee has not met as a group but has acted upon pertinent matters by correspondence, in addition to consulting individually with staff of the Health Careers Program where indicated.

Mr. Taylor C. Wells, Director of the Health Careers Program, has requested that the constituent local medical societies of The Medical Society of Virginia each designate a member or members to act as a contact physician with persons interested in becoming physicians. He is working towards establishing contact persons in all professional health organizations in the State.

The desired result could be achieved in at least three ways:

1. The President, The Medical Society of Virginia, could designate one or more members of each constituent local medical society to be the liaison officer.
2. Each local medical society could nominate one or more of its members to serve in this position.
3. A serving officer of each society could assume the position, in rotation, as part of his assigned duties.

The Committee is inclined to favor #2. Each local society would then notify the President, The Medical Society of Virginia, of its choice and he would transmit the complete list for the State to the Health Careers Program. It is the Committee's understanding that the list of physicians would not be publicized but that Mr. Wells and his colleagues would act as the intermediary in the program, referring the names of interested students to the appropriate local society member, who would then contact the enquiring student.

#### *Recommendation to the House of Delegates*

The Committee recommends that The Medical Society of Virginia approves the idea of local medical societies in the State appointing one or more of their members to act as contact physicians to the Health Careers Program of the Virginia Council on Health and Medical Care. The President, The Medical Society of Virginia, will be notified of the local societies' choices, will compile a list of the names submitted to him, and will transmit it to the Director, Health Careers Program. The list will remain as a confidential document. The Director, Health Careers Program, will notify the appropriate local physician if a student expresses an interest in medicine as a career.

F. J. SPENCER, M.D., *Chairman*  
WILLIAM M. MASSIE, M.D.  
WILLIAM H. SIPE, M.D.  
SAM D. GRAHAM, M.D.

#### MENTAL HEALTH

The Mental Health Committee met on April 11, 1973, and again on June 6, 1973, the Committee met jointly with the Legislative Committee of The Medical Society of Virginia. Those present for the first meeting other than the Committee members were Dr. James B. Funkhouser, Deputy Commissioner, Department of Mental Hygiene and Hospitals; Mr. Robert I. Howard, Execu-



tive Vice-President, The Medical Society of Virginia; Dr. Raymond S. Brown, Section Leader; and Mr. Willard C. Osburn, Administrative Assistant, The Medical Society of Virginia who acted as Secretary for the Committee.

Mr. Robert I. Howard reviewed with the Committee the involvement of The Medical Society of Virginia and the American Medical Association in the P. S. R. O. movement. It was pointed out that every specialty would eventually be involved. Both the good and bad features of the program were discussed together with the history of the development of P. S. R. O.

It was learned that The Medical Society of Virginia was in the process of formulating a state P. S. R. O. plan in compliance with Public Law 92-603 (the social security amendments of 1972). Mr. Howard pointed out that the final version of the plan would be sent to all component Medical Societies for their review and the final version of the P. S. R. O. plan of The Medical Society of Virginia would be submitted for final approval to the House of Delegates in October 1973. There is considerable concern that a large segment of physicians in the State seemed unaware of the danger of fragmenting the State into small P. S. R. O. regions. It was pointed out that all members of the State Society, which certainly should involve all specialties, should formulate a united front in order that physicians could maintain control over the P. S. R. O. program in Virginia.

The Chairman reported to the Committee that he attended the 19th Annual Conference of State Mental Health Representatives held in Chicago, Illinois, on April 6th and 7th, 1973. The two-day conference involved the discussion of the committed patient and their right to treatment. It was pointed out that recent court decisions concerning the rights of the mentally ill and mentally retarded patients and the many "class suits" pending represents a clear trend toward psychiatrists' responsibility in this long neglected area.

It was also pointed out that the organization of P. S. R. O.'s will contribute to this trend by further emphasizing accountability of the physician and the health care system to government agencies and consumers and by providing a specific peer review monitoring mechanism.

There was considerable discussion and concern manifested by the Committee in regards to the problem of adequate patient care for the large number of patients who are being discharged from the state hospitals. As a result of this, a resolution was unanimously adopted by the Committee that it should be called to the attention of the Secretary of Human Affairs the problem of caring for patients discharged from state mental hospitals. It was strongly urged that there be a coordination and unification of those agencies having responsibilities of pre- and post-hospital care with special emphasis on minimizing as much as possible the necessity for hospitalization of the mentally ill and mentally retarded.

The Committee received a report on several bills passed by the 1973 Session of the General Assembly. One bill, H.B. 14-12, which allows optometrists and psychologists to be paid directly by Blue Shield and other insurance carriers provoked considerable discussion.

A motion was adopted by the Committee that the Mental Health Committee work with and request the

Neuropsychiatric Society of Virginia to recommend guidelines for appropriate supervision by physicians of ancillary psychiatric personnel.

The Committee discussed the continuing problem of the lack of coverage for mental illness being made available by various insurance carriers in the State of Virginia. It was pointed out that the State of Connecticut has enacted a law that requires all insurance carriers of health insurance be required by law to provide coverage for mental illness in their policies. It was the consensus of the Committee that a copy of the Connecticut Statute dealing with this problem be presented to the Legislative Committee of The Medical Society of Virginia with the request that they consider the feasibility of recommending that a similar bill be introduced in the Virginia General Assembly as early as possible. (A copy of the Connecticut bill has been forwarded to the Legislative Committee).

Much concern was voiced by the Committee over the continued lack of residential treatment facilities for children throughout the Commonwealth. The Committee voted unanimously to request The Medical Society of Virginia to urge the proper authorities in the State of Virginia to take positive action toward the establishment of residential treatment facilities for children (under 12 years of age) and adolescents as well as improved provisions for foster home care for such individuals and to this end request the Legislative Committee to consult with the Department of Mental Hygiene and Hospitals and the Neuropsychiatric Society of Virginia so that, hopefully, the combination of all forces involved might produce satisfactory results.

For several years The Mental Health Committee has discussed the feasibility of sponsoring a Defective Delinquent Bill through the Legislative Committee of The Medical Society of Virginia with its eventual introduction in the Virginia Legislature. Finally, on June 6, 1973, there was a joint meeting of the Legislative and Mental Health Committees held solely for the purpose of discussing a proposed Defective Delinquent Bill. The chief spokesman for the Mental Health Committee was Dr. Emory Hodges who has so diligently pursued this matter since becoming a member of the Mental Health Committee. The proposed bill was reviewed in detail and after making quite a few changes and corrections in the original draft of the proposed bill it was approved by both the Legislative and Mental Health Committees. It is expected that the proposed bill will be introduced in the 1974 Virginia General Assembly.

The Chairman wishes to express to the remainder of the Committee and to Mr. Robert I. Howard, Executive Vice-President of The Medical Society of Virginia and Mr. Willard C. Osburn, Administrative Assistant, The Medical Society of Virginia his appreciation for their cooperation in the formulation of this report.

JOHN R. SAUNDERS, M.D., *Chairman*  
W. D. BUXTON, M.D.  
EMORY F. HODGES, JR., M.D.  
O. T. GRAHAM, M.D.  
ASAD MASRI, M.D.  
MORGAN SCOTT, M.D.  
ROBERT H. THRASHER, M.D.  
R. TERRELL WINGFIELD, M.D.



## LIAISON TO STATE BAR

The Joint Medical-Legal Panel for screening medical malpractice cases has held 14 hearings during the past twelve months and it is almost a certainty that several others will be held before the Annual Meeting.

Your committee continues to meet at regular intervals with representatives of the State Bar and is pleased to report that our working relations with that organization have never been better.

The Joint Committee met on three occasions during the past year and there was some concern by both groups that the original intent of the plan was not being fulfilled. With this thought in mind, several amendments were made and approved by the Society and the State Bar. Paragraph 6 pertaining to the procedure now reads as follows:

"If the decision of the Panel is in the negative, the attorney submitting the application and/or representing the claimant before the Panel, or any of his partners or associates, shall thereafter be precluded from preparing, filing or participating in any court action against the same physician involving any of the issues heard by the Panel. The right of the claimant and/or physician involved to have the case heard in a court of law shall not be affected by the decision of the Panel. The right of the attorney representing the claimant to advise his client as to his rights and interest shall also remain unimpaired by any decision of the Panel."

In addition to the amendments the Committee felt an overall revision of the Plan was in order. An Ad Hoc Committee worked many hours drafting the revision and the final draft was approved by both associations.

A continuing effort is being made to publicize the Panel and its purpose. We hope very much that by the time this issue is published a descriptive brochure pertaining to the Plan will have been received by the membership. The State Bar will also distribute the brochure and do everything possible to keep its own members aware of the Panel's existence.

Your committee was hopeful last year that the study by H.E.W. would provide some practical answers to the malpractice situation.

The committee appointed by government has made its study and the report is available in print.

We now feel we must strengthen our committee here in Virginia. We wish to make its services known to all state physicians and attorneys. As experience continues to accumulate further changes may be made in our procedures so that we can continue to aid our colleagues more effectively.

GEORGE M. NIPE, M.D., *Chairman*

## NURSING

At the request of The Medical Society of Virginia, the Chairman of the Liaison Committee to Organized Nursing attended the National Conference of State Joint Practice Committees at Nordic Hills, Itasca, Ill., on November 9-10, 1972, where the following subjects were discussed: (1) Organization and Purposes of State Joint Practice Committees. (2) Legal Implications of Chang-

ing Personnel Roles. (3) Joint Planning for Improved Urban Health Care. (4) Inter-disciplinary Approaches to New Health Roles.

Forty-six states were represented; 34 by medical and nursing personnel, two by medical personnel only, and 10 by nursing personnel only. Virginia was represented by Dr. Leon Bloodworth, Department of Family Practice, the Medical College of Virginia, Dr. W. Nash Thompson, Chairman of the Liaison Committee to Organized Nursing, Dr. Vida Huber, R.N., Superintendent of Nurses at Minnonite Hospital of Harrisonburg, and Ms. Margaret V. Henly, R. N., President-Elect of Virginia Nurses' Association.

Following the meeting a summary and analysis was sent to all participants, with a 56% return. Of those reporting 90% believed that the conference overall was a satisfactory one. Sixty-one of the respondents felt that the State Joint Practice Committee can play an effective role in improving health care through cooperative nurse-physician activities, and 61 per cent indicated that specific follow-up activities in connection with the conference had already been conducted or were in the process of being planned.

Your Liaison Committee submitted a proposal to The Medical Society of Virginia following their meeting in July 1972 recommending that the Society set up a Joint Practice Committee following the guidelines set forth by the National Joint Practice Commission; however, the reference committee stated that they lacked information, and this motion was tabled. After returning from the National Conference in November the Chairman of the Liaison Committee reported to Council on the activities that took place on a National level and again presented the resolution to Council recommending such a committee in the State of Virginia. Council was not satisfied at this time and asked that the committee meet with the nurses again, along with a representative from Council, Dr. Harry E. Hager, for further study and clarification. This meeting was held February 25, 1973, with all members present other than Dr. Robert Mann. Dr. Harry E. Hager, assigned councilman for this committee was present, also Dr. Leon Bloodworth, as representative to the National Joint Conference. Representing the Nurses' Association were: Kenneth L. Rinker, R. N., President of Virginia Nurses' Association, Mrs. Barbara T. Walker, R. N., Executive Director of Virginia Nurses' Association, Miss Annabell Kinney, R. N. and Ms. Margaret V. Henley, R. N., who was present at the National Conference.

Mr. Rinker reported that the House of Delegates of the Virginia Nurses' Association approved a resolution supporting the formation of the Joint Practice Committee at their annual meeting.

Three of the members present discussed the National Joint Practice Commission's meeting, pointing out the benefits that could be derived through a Virginia Joint Practice Committee. It was moved by Dr. Cooke that the present Committee on Nursing be dissolved and in its place a Virginia Joint Practice Committee be formed and that it be formed from equal numbers from each Association. The motion was seconded by Dr. Guerrant and carried.



It was pointed out that the Joint Practice Committee would perform all the functions now performed by the Liaison Committee to Organized Nursing and many more than we are now doing.

A sense of urgency was voiced relative to the formation of the Joint Practice Committee and the hope was expressed that the Society would realize the urgent need of this committee.

The Chairman was informed that at the April meeting of Council the recommendations of the Committee on Nursing were accepted and will be presented to the House of Delegates in October for final approval. We are expecting the House of Delegates to approve this resolution.

W. N. THOMPSON, M.D., *Chairman*  
 CHARLES H. TOWNES, M.D.  
 WILLIAM E. PAINTER, M.D.  
 C. BARRIE COOK, M.D.  
 JOHN L. GUERRANT, M.D.  
 ROBERT F. MANN, M.D.

### MATERNAL HEALTH

Dr. Norman Thornton, Chairman, called the meeting to order and all twelve members were present.

Mr. William Read Miller, legal representative for The Medical Society of Virginia, attended the meeting, as requested, to confer with and guide the Committee in its deliberations relating to Dr. Stark's request for the Committee's thinking on the Supreme Court's present ruling on abortions and its suggestions for recommendations to our legislators.

Mr. Miller and the Committee members studied and discussed, item by item, a proposal for revision of the Virginia Abortion Law which would meet the stipulations are enunciated in the Supreme Court's decision on this matter. The new draft will be sent to the Chairman and Secretary for distribution to Committee members for further consideration and suggestions if indicated. An approved proposal will be sent to Doctor Stark as Committee recommendations.

The Annual Statistical Report on maternal deaths showed a total of 14 deaths during the calendar year 1972 for a rate of 2 per 10,000 live births, third lowest in history. Seven of these deaths were white and 8 were nonwhite; 5 were due to abortions, 4 septic, 1 therapeutic and 4 were ruptured ectopics. The 1972 rate of 2 per 10,000 was bettered in 1971 with a rate of 1.2 and in 1968 with the rate of 1.6 and was equal in 1969 with the rate of 2. Total births were estimated as 74,900.

The new Maternity Record, to be used by all State Health Department Clinics and The Medical College of Virginia was presented to the Committee for informational purposes. The Record was jointly developed by the State Health Department and The Medical College of Virginia. It is designed to be a complete and continuous report of a maternity patient's prenatal, hospital and post partum course, providing a copy to the physician and hospital. It can also be used by physicians and hospitals throughout the State and is expected to be a strong impetus to uniform reporting and development of statistical information. The Committee endorsed the concept of the record.

A summary of laws enacted by the 1973 session of the General Assembly which have particular interest to the Committee, together with copies of these laws, was reviewed by the Committee. House Bill 76 amended the Minor Consent Law to exclude vasectomy, salpingectomy or other sterilization procedures. Thus parental consent is required for those under 18 years of age. House Bill 1220 amended law on communicable diseases (32-57.1) to require immunization against Measles, Rubella, Diphtheria, Tetanus, Whooping cough, and Poliomyelitis. It also requires that pupils entering school be successfully vaccinated for Smallpox or present a written statement from a licensed physician stating that in the physician's opinion vaccination with Smallpox vaccine is contraindicated. House Bill 1368 requires the State Health Department to establish and maintain minimum standards and qualifications for organizations and individuals who procure or in any way handle human blood or derivatives for human use so as to assure a safe and reliable supply of the same for health services. House Bill 1451 amends the Nurse Practice Act to permit the Virginia State Board of Nursing and Virginia State Board of Medicine to jointly establish rules and regulations for the provision of medical and health services by a nurse practitioner under the supervision of a duly licensed physician. House Bill 1722 amends the Medical Practice Act to permit a physician to employ personnel, supervised by him, to perform functions which are non-discretionary or do not require the expertise of professional judgment for their performance, provided the responsibility for such activities is assumed by the physician. Senate Bill 665 amended the Medical Practice Act permitting the use of a physician's assistant.

The extremely dangerous and, unfortunately, usually lethal outcome of oral genital sex activity in which air is blown into the vagina was discussed by the Committee. Recently such a lethal case occurred in Virginia and also a similar case in North Carolina. There are 8 other such cases reported in the literature. Due to the dramatic and death dealing results which frequently occur from such actions it is recommended that all maternity patients be informed of the hazard and instructed not to engage in such action.

The Committee's additional activities during the year relating to maternal death study is presented:

No. of Cases Received from Vital Statistics.....	28
No. Investigated .....	21
No. Reviewed by Committee .....	18
No. Reported and Closed.....	281

WILLIAM N. THORNTON, M.D., *Chairman*  
 JAMES J. DUNNE, M.D., *Secretary*  
 WILLIAM H. COX, M.D.  
 WILLIAM L. DRISKILL, JR., M.D.  
 LEO J. DUNN, M.D.  
 RUFUS P. ELLETT, JR., M.D.  
 THERON H. HAAS, M.D.  
 SAMUEL P. MASSIE, M.D.  
 FRANCIS R. PAYNE, M.D.  
 CLAUDE A. SMITH, M.D.  
 GEORGE SPECK, M.D.  
 FRANK G. TURNER, M.D.



## ENVIRONMENTAL AND OCCUPATIONAL HEALTH

The committee considered its major responsibility was to identify problems in environmental and occupational health about which the physicians in Virginia should be informed. To accomplish this the committee will establish a close liaison with the State environmental agencies and State Health Department to pinpoint areas of the State where dangerous levels of pollution are likely to occur and keep the physicians in these areas informed. The committee will attempt to be informed of activities of State Boards concerned with environmental and occupational health hazards and participate in the hearings conducted by these boards. The committee has been receiving from the State Air Pollution Control Board periodic reports of air pollution levels from its monitoring stations throughout the state. These reports indicate that where National Air Quality Standards are not being met, appropriate action by the State Air Pollution Control Board is being taken.

Support was given before the General Assembly for adequate funding of the state environmental agencies and of the health departments in the development of sound environmental health practices. Bills on environmental and occupational matters that were proposed for action by the Virginia General Assembly were reviewed.

There probably will be environmental surveys by HEW and there should be developed a close liaison between our committee, the Virginia Association of Industrial Physicians, and the Industrial Hygiene Division of the State Health Department to review these surveys. Joint meetings and conferences should be held among physicians in private practice, in industrial medicine and in public health in regard to any environmental hazards that are found and programs developed to eliminate such hazards. Any real or suspected health hazard due to environmental factors should be reviewed by the committee and, after expert consultations when needed, medical advice concerning such hazards should be made available to the medical profession.

The committee should relate closely to the Council on Environmental, Occupational and Public Health of the AMA; summaries of the meeting of the council should be available to members of the committee and a representative of the committee should attend the annual AMA Congress on Environmental Health. A member of the committee attended the Regional III meeting of the AMA Council on Environmental, Occupational and Public Health in Washington on December 8, 1972. A report on this meeting was sent to Dr. Stark.

EDWARD S. RAY, M.D., *Chairman*  
WILLIAM S. DINGLEDINE, M.D., *Vice Chairman*  
THOMAS N. HUNNICUTT, JR., M.D.  
JAMES M. MACMILLAN  
R. F. SAPPINGTON, JR., M.D.  
CHARLES S. SALE, M.D.  
ARTHUR J. MOUROT, M.D.  
MAURICE M. MILLER, M.D.

## REHABILITATION

Your Rehabilitation Committee has throughout the year provided consultation regarding medically related matters to the Virginia Department of Vocational Re-

habilitation. The Committee has provided special consultation to the Disability Determination Division of the Department of Vocational Rehabilitation.

The committee met July 30 in conjunction with the area medical consultants for rehabilitation and the Staff of Vocational Rehabilitation. The committee heard an overview of the Vocational Rehabilitation program presented by the staff members of the Vocational Rehabilitation Department. The committee received information on and took under advisement further study of the fee schedule.

It is with deep sorrow that we report the loss of one of our long time valuable members, Dr. James Thomson, neurosurgeon. He will be greatly missed.

On the occasion of his retirement, Mr. Ed Justis, Deputy Commissioner of Vocational Rehabilitation, who served as the Department of Vocational Rehabilitation liaison with the Medical Advisory Committee, was presented by the Vocational Rehabilitation Committee a citation for his service.

Dr. Abdon Reina, of Norfolk, was appointed to replace Dr. Thomson as neurosurgical member of the Vocational Rehabilitation Committee.

JOSEPH E. ANDERSON, JR., M.D.  
JOSE D. COLL, M.D.  
ROBERT J. FAULCONER, M.D.  
G. S. FITZ-HUGH, M.D.  
HUNTER S. JACKSON, M.D.  
JOSEPH T. KAYE, M.D.  
RICHARD H. LOWE, M.D.  
FRANK C. MCCUE, III, M.D.  
J. TREACY O'HANLAN, M.D.  
WILLIAM ORR, M.D.  
CARNEY C. PEARCE, JR., M.D.  
RENO R. PORTER, M.D.  
ABDON REINA, M.D.  
WILLIAM D. RUSHER, M.D.  
FRANK STRICKLER, M.D.  
WILLIAM W. WALTON, M.D.  
DAVID K. WEBSTER, M.D.  
ALEXANDER McCausland, M.D., *Chairman*

## AD HOC PEER REVIEW

The following PROPOSED PLAN for a Professional Standards Review Organization in Virginia is being referred to the House of Delegates for final acceptance or rejection:

### Questions and Answers (Tentative) on a Proposed PSRO Plan for Virginia\*

- Q. Why "tentative" answers?
- A. Because PSRO (Professional Standards Review Organization) is a new, national program in its early experimental stages and full and complete guidelines are not likely to be available until later.
- Q. Is it optional or mandatory that there be a PSRO program in Virginia?
- A. Mandatory. Public Law 92-603 clearly places the responsibility upon the Secretary of Health, Educa-

\*As seen from the viewpoint of the Peer Review committee of The Medical Society of Virginia.



tion and Welfare to set up a PSRO program throughout the United States.

Q. What if physicians don't choose to cooperate?

A. The law and the Congressional hearings preceding its enactment make it clear that the intent of the Congress is to have the program carried out primarily by organizations of practicing physicians. In the event of the unwillingness of physicians in any area to take their own initiative, the law provides that (after 1975) the Secretary HEW may designate other organizations having medical competence (for example, insurance carriers). Obviously, this would result in physicians in such areas having much less say in matters affecting them.

Q. What is The Medical Society of Virginia doing in this regard?

A. At the Society's November 1972 annual meeting a committee was appointed for the purpose of developing a detailed, workable plan of PSRO, to be circulated to all component medical societies and then presented at the October 1973 annual meeting.

Q. What kind of a plan does this committee (ad hoc Peer Review committee) have in mind?

A. The committee has drawn up a tentative plan which will be revised in the light of comments to be received from all interested parties. The plan consists basically of a single strong physician-controlled organization, set up as a non-profit corporation. It would conduct at its central headquarters (probably Richmond) those PSRO functions best handled centrally. It would conduct at five "satellite" locations those functions best handled locally.

Q. What if the Secretary HEW chooses to partition Virginia into more than one PSRO area, because of its size and population, as his prerogative under PL 92-603?

A. It is our present opinion that those to whom the Secretary HEW would turn for recommendations on this matter would be willing to concur in the plan proposed, provided they can be shown that it has the support of organized medicine in Virginia and offers the economies described in the plan with regard to functions that lend themselves to centralized operation, such as computer usage.

Q. Since the utilization review committees at hospitals and other institutions are still going to function, where does PSRO fit in?

A. The law states: "Each PSRO shall utilize the services of, and accept the findings of, the review committees of a hospital or other operating health care facility or organization . . . but only when and only to the extent and only for such time that such committees . . . have demonstrated to the satisfaction (of PSRO) their capacity effectively and in timely fashion to review activities . . . including the medical society of admissions, types and extent of services ordered, and lengths of stay. . . The Secretary HEW may prescribe regulations to carry out the provisions of this subsection."

We assume that the PSRO would not be a rubber

stamp but would maintain genuine and continuing review through the use of scientific sampling and other methods, adapted to the individual institution.

Q. If requested, would the proposed Virginia PSRO organization review non-federally financed cases for the insurance carriers and intermediaries and charge them for the service?

A. This is being done by several existing medical foundations. However, the Virginia organization should restrict itself, certainly at first, to those duties required of a PSRO. The matter is worthy of consideration, but at a much later date.

Q. How would the organization be financed?

A. By the U.S. Department of Health, Education and Welfare.

Q. Would the organization purchase a large computer to do the necessary data processing for PSRO?

A. No. It appears more advisable to subcontract this function. However, the data and the decisions as to data requirements would be under the control of the proposed PSRO organization and safeguards provided for sensitive data considered confidential.

Q. If each institutional patient's record were subjected to complete review against detailed PSRO criteria for care, diagnosis and treatment, would this not require very large expenditures of money and time of physicians, nurses and clerical personnel?

A. To avoid this the proposed Virginia plan incorporates a method referred to as "statistical quality control". This term refers to the use of scientific sampling methods in the review process. It is a standard inspection technique that has been used for many years in the manufacturing industries and later applied successfully in accounting, insurance and many other non-manufacturing fields of endeavor. It relies upon sampling to identify the nature and sources of trouble. Primary attention is then given to correcting the trouble at the source (so that it won't happen again), rather than being overly concerned about irregularities in the sample cases themselves. As applied to PSRO, this method would place the emphasis upon identifying the persons and places responsible for departures from accepted PSRO criteria. Retrospective denial of claims (other than flagrant ones) would be avoided. Cost and personnel requirements associated with the statistical quality control technique are, of course, far less than for 100 percent inspection systems.

Q. How would physicians be chosen to serve on the various PSRO committees, and would they be paid for their services?

A. Panels of physicians would be selected from time to time by the chairman of each committee, from the entire list of those who volunteered to serve. It is expected that duties requiring a significant amount of professional time—e.g., one full day, or more per month in review of cases—would be on a paid basis. Persons having committee assignments of an honorary or general policy-making nature might prefer to be compensated for expenses only.



## DRAFT PLAN FOR PSRO IN VIRGINIA

(Profession Standards Review organization under  
Public Law 92-603)

1. *Purpose*—The purpose of this paper is to set forth a proposal for the establishment of a health care services review organization for Virginia, pursuant to the requirement of Public Law 92-603, in detail sufficient for:

- a. circulation for criticism and comment to members of the Council of The Medical Society of Virginia and to each component local medical society; and
- b. circulation for informal comment by planning staff personnel of the federal agency that would provide the primary funding of the organization if and when established.

After the above has taken place, it is contemplated that a revision would then be prepared,

- a. for presentation to The Medical Society of Virginia at its October 1973 annual meeting; and
- b. as the basis for possible application to the Secretary of Health, Education and Welfare for PSRO designation and funding, to commence on or about January 1, 1974: such designation to be "conditional", as provided in the law to permit termination upon 90 days notice by either party to the agreement.

2. *Basic assumptions*—This proposed plan incorporates certain assumptions which the Peer Review committee believes would make it acceptable to the largest possible number of physicians in Virginia, particularly in view of the many doubts, expressed and unexpressed, known to exist. Further, it is recognized that new sensitivities are likely to be aroused in the course of hearings and debate on the various health care delivery Bills being considered by the 93rd Congress. Therefore, the following has been assumed in drafting the proposed PSRO:

- a. There shall be no extension of review authority to situations beyond those *required* by the law. Any extension to *optional* functions should be undertaken only if it were found that the views of organized medicine in Virginia were preponderantly in favor, and in any case, should not even be considered until a substantial experience had been obtained in administering the *required* functions. As prime example, there is *no* provision in the proposed plan for the review of services to Medicare and Medicaid patients at physicians' offices, although the law makes this optional when approval is given by the Secretary of Health, Education and Welfare.

- b. There should be no building of a review bureaucracy. Personnel requirements should be limited to those essential to operate efficiently and in a manner neither half-hearted on the one hand nor zealous on the other. To the extent possible, the review work should be done by persons already attached to other organizations, and by volunteer and part-time personnel not dependent upon the PSRO organization as the principal source of their livelihood.

- c. Emphasis should be placed upon indirect rather than direct reduction of health costs. We are quite cognizant that one of the primary motivations for establishing PSRO nationally is the rapid increase in

health care costs and the increasing federal role in payment of such costs. It is proposed by this committee that the prime thrust of PSRO in Virginia should be for quality care at reasonable cost, achieved through an effective educational program based on realistic standards adapted to and acceptable in the area in which the health care services are provided. It is believed that an educational program directed toward the specific problems as they are brought to attention through the review process, would gradually bring about adherence to the standards and thereby would be conducive to the reduction of unnecessary care and excessive costs. For example, the standards would undoubtedly have influence in reducing excessive use of laboratory procedures of questionable value, and in reducing utilization of hospitals as compared with less costly facilities. With this approach it should be possible to contain or reduce cost and at the same time avoid having PSRO become primarily a cost-cutting program.

- d. Physicians should control the proposed PSRO organization. The law and hearings preceding its enactment clearly indicate that the first choice of the Congress is for physician control and only as a last resort, in case of unwillingness of physicians in an area to assume the review responsibilities through an organization of their own, would the Secretary be required to turn to other organizations. It should be noted that *if there are three or more PSROs within a state*, the law makes possible the appointment of a limited number of non-physicians at the state level, representing the public interest, with a voting voice. Therefore, if the plan's concept of a *single* statewide PSRO were not accepted, but instead three or more independent PSROs were set up in Virginia, a "state-wide review council" would be mandatory. Under the law, members of this council would be designated as follows: 1 by each PSRO; 2 by the State Medical Society; 2 (physicians) by the State Hospital Association; and 4 designated as representatives of the public by the Secretary, U.S. Dept. of HEW (at least two of whom are to be recommended by the Governor, and *none of these four is required to be a physician*).

- e. Any case review decision of the PSRO for which disagreement might remain after thorough consultation with the physician concerned, should be confined to a decision on the propriety of payment.

- f. There should be no attempt at regulating fees.

3. *Division of activities between state PSRO headquarters and "satellite" offices*—It is believed that the strength of the organization would derive from a careful combination of fairly self-sufficient operating activities at the local (satellite) level and the centralization of controlling, planning, administering, data processing, and reporting activities at the state headquarters. Thus, we propose that the state be subdivided into five areas. The Executive Director of the PSRO (who would probably be located in Richmond) would appoint, with the approval of the PSRO Board of Directors, one resident Coordinator in each of the five areas, who would be responsible to the Executive Director for the day to day ongoing activities of PSRO throughout the cities and



counties in the Coordinator's area. However, in order to assure that the program is fully sensitive to the views of physicians in the area, there would also be formed at each of the five satellite locations a *local area PSRO committee* of physicians. Although not giving direct orders to the Coordinator, this area committee would provide him with the backup and moral support that will undoubtedly be needed in this kind of program. At the same time, the area committee, meeting perhaps monthly, would keep under continuous review the policy aspects of the program, and maintain a close linkage on PSRO matters with the physicians of the area and their component local medical societies. Presumably, a member of the state PSRO Board of Directors or alternate would be the chairman of an area committee.

4. *The principal duties of the Coordinators would be:*

a. To establish and maintain the direct personal liaison on behalf of the PSRO with each health care institution in their respective areas of the state.

b. To employ, in accordance with budget and personnel authorizations from the State Executive Director, persons (mostly part-time) to collect the basic case by case data required by the program, in format suitable for computer processing at the state headquarters.

c. To participate in the organization of the necessary physician committees and to provide support.

d. To assist the PSRO headquarters in disseminating information on the program, its progress and results.

5. *Duties of physician committees.* One of the principal activities within the local area would be the formation and operations of the rotating panels of physicians. (By "rotating" is meant that the membership of the panels would gradually be changed, in order to avoid placing too much burden on any one physician, and in order to provide personal participation opportunity for the largest possible number of physicians.) The chairman of each physician committee would work closely with the Coordinator for the area in which the committee is located, but would look for guidance on Professional matters to the PSRO Medical Director (a physician) at the state central headquarters. There would be three types of committees:

a. *The area PSRO committee*, one in each area, concerned with policy matters as previously described.

b. *Professional standards panels.* These would formulate and continuously update the norms of care, diagnosis and treatment (criteria) which serve as the standards against which quality of care would be measured throughout the State. (Some criteria could contain variations to provide for the differing conditions in the several parts of the State.) Most panels would be concerned with a single type of health condition (or a group of several related health conditions) as, for example, a panel on gastric ulcers. *But there would be only one panel in the entire State for any one health condition.* That panel would have its activities centered at a location having strong resources for carrying out its work, but its membership could be State-wide. Thus, the proliferation of

similar panels throughout the State would be avoided, with consequent savings of time and expense. This type of panel would be composed of a combination of *specialists* in regard to the particular health condition, and *primary care physicians* familiar on a day to day basis with the variations in the different parts of the State with regard to current practice, the health care facilities available, and the socio-economic aspects of patient care.

c. *Case review panels.* These panels, one in each of the five geographic areas, would be responsible for the professional review of actual cases against the PSRO standards, and would be the centers for decision on payment or non-payment of federal funds for particular cases. A case review panel would be a large one, from which a subcommittee could be drawn to consider almost any problem. This panel would consult, as needed, with any of the various specialized professional standards panels referred to in para. b. above, and in fact, might occasionally ask to have representatives of those panels join with the case review temporarily. Much of the work of a case review panel would be in review of the procedures, findings, and problem cases of the area's hospital utilization review committee.

6. *Local activities during the formative period of PSRO.* The plan and procedure for a successful PSRO program in Virginia cannot be laid down in ultimate detail in advance. Whatever plan is adopted initially can only provide a framework within which activities can be started and developed through the combined efforts and ideas of numerous individuals. Therefore, no element of an adopted plan should be considered exempt from modification as experience is gained by persons working together to carry out the program at the so-called grass roots. As a general principle, the required functions should be mastered and extended gradually, so that the activities will be a credit to the program and its sponsors. Every effort will be necessary to avoid the situations of confusion that occasionally have attended new federally-financed programs when introduced on a crash basis at the local level. Fortunately, the language of P.L. 92-603 recognizes this fact and provides a trial period of up to two years during which the functions are progressively absorbed as the PSRO becomes more and more capable of carrying out its responsibilities.

7. *Central headquarters organization.* The policy and controlling body would be the Board of Directors, as outlined in the proposed By-laws. Advisory to the Board would be persons nominated by organizations representing the interests of hospital administrators, nurses, pharmacists and other health care professionals, insurance carriers and health service financial intermediaries, state public health officers, and public interest groups concerned with health care delivery.

The Board would engage the full-time services of an experienced administrator as its Executive Director, who would be responsible to the Board for all activities of the organization and for its day to day relationships with the federal agency funding the program. The top management team at central headquarters would, in ad-



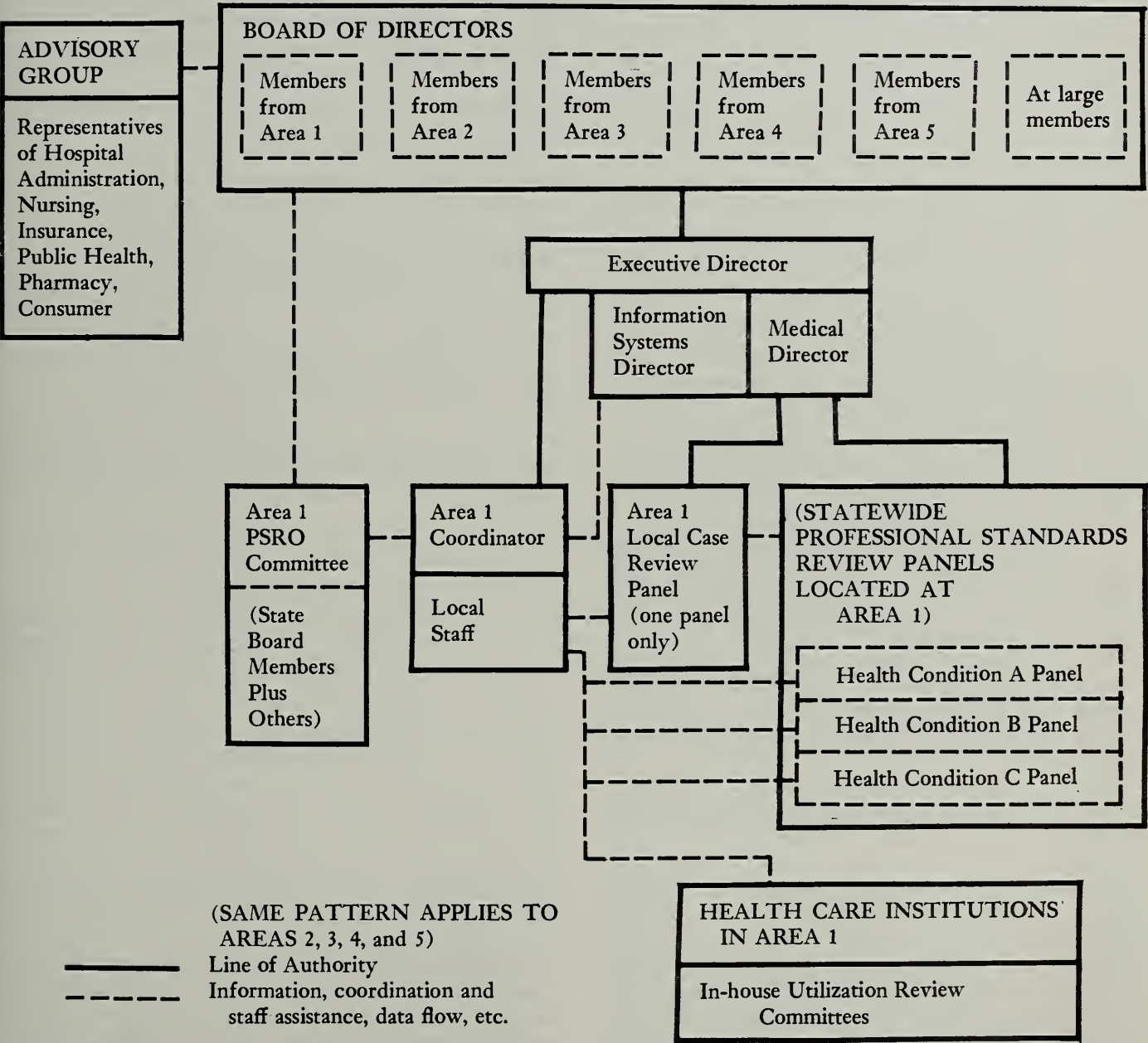
dition to the Executive Director, include a full-time Medical Director and a full-time Information Systems Director.

The Medical Director, a physician, would provide professional leadership, guidance and surveillance to the professional review committees of physicians throughout the State; would review the controversial cases that presented difficulties to these committees; and would originate the organization's medical education activities.

titative aspects of the program, including program analysis, and the progress reporting needed by the funding agency and the organization's Board of Directors.

As the program developed, the Executive Director would probably require several staff assistants to whom he could turn for support on certain aspects of his planning, liaison, and administrative responsibilities. Eventually, there would very likely be need for a separate Field Operations Director, reporting to the Executive Direc-

**Proposed Professional Standards Review Organization**  
**RELATIONSHIPS BETWEEN CENTRAL HEADQUARTERS AND LOCAL ACTIVITIES**



Among these would be seminars at local institutions to cope with specific problems emerging from the peer review process; and the dissemination of non-confidential information via the various journals and newsletters that are customarily read by physicians, nurses and other health care providers throughout Virginia.

The Information Systems Director would be responsible for the large-scale data processing work and computer utilization, and would be concerned with all quan-

tor, who would become the channel for relations with the five local area Coordinators and who would regularly visit the "satellite" locations.

8. "Satellite" locations. There are, of course, numerous ways in which boundaries might be set. For purposes of this proposal, an analysis was made which took into principal consideration the geographical distribution of non-federal physicians active in patient care; the boun-



daries now in effect between the local component medical societies; the general characteristics of the several parts of the state; and the most commonly used travel routes. Certainly, the matter of boundaries should be sufficiently flexible to permit boundary changes where any component medical society wishes its territory to be part of an adjacent area in preference to the one initially shown in the plan.

The specific boundaries shown below reflect the fact that there are five major concentrations of physicians in Virginia: the Richmond vicinity; the Northern Virginia portion of the Washington metropolis; the Hampton Roads area; the Roanoke-Lynchburg area; and the Albemarle-Augusta area. Over three-quarters of Virginia's non-federal physicians in patient care are practicing in the relatively small percentage of Virginia's land area covered by these five locations. Therefore, operating locations for the "satellite" offices would probably be most conveniently located at or near Richmond (sharing space with headquarters office), Alexandria, Norfolk, Roanoke, and Charlottesville. However, the various physician committees could meet at those locations within their respective area which best accommodated the particular group—even alternating the meeting sites if desired.

Proposed boundaries for the five areas are as follows:

a. *Northern Virginia.* Arlington, Falls Church and Alexandria cities and Fairfax, Prince William and Loudoun Counties.

b. *Southwestern Virginia.* Counties of Bath, Alleghany, Botetourt, Bedford, Pittsylvania, Campbell and the city of Lynchburg, and all counties and cities to the west of those named.

c. *Tidewater Virginia.* Counties of Westmoreland, Essex, King & Queen, King William, New Kent, James City, Isle of Wight and Southampton, and all counties and cities to the east of those named.

d. *North Central Virginia.* Counties of King George, Caroline, Louisa, Fluvanna, Cumberland, Buckingham, Nelson, and Amherst, and all counties and cities to the north and west of these which are not already listed above.

e. *South Central Virginia.* All counties from Hanover southward to the North Carolina line not already listed above.

9. *Method of Case Review*—The PSRO would begin review operations at any given hospital or institution with a "Familiarization" phase, with use of computer being optional, and proceed to full-scale computerized operations only after the institution was judged "ready" to participate. "Ready" means an understanding and acceptance of PSRO criteria, and personnel designated and trained for specific responsibilities in relation to PSRO. It may also mean having a revised plan for the institution's own utilization review process so that it will not simply emphasize length of stay, but will also include consideration of the other elements which PSRO is required to monitor.

During the "Familiarization" phase (see first chart), there would be no changes in the existing flow of claims forms. The carriers and intermediaries would continue

to review the claims as they do at present. A *sample* of cases would be reviewed by the PSRO Case Review Committee in the area in which the institution was located. The Committee would comment on those cases considered to have value toward educating the institution as to the requirements and viewpoints of PSRO. On-site visits would also be made, and orientation given to personnel at the institution. As a result of these relationships, PSRO would be in position to assess the institution's capabilities for participation in the review process, and to determine the extent to which the institution's own personnel (rather than PSRO-employed outside personnel) can handle a large part of the job. During "Familiarization", the only instance in which the PSRO would exert decision-making authority over claims would be in cases where the institution and carrier might request PSRO to resolve a dispute.

The second or "Sampling" phase (see second chart) involves the use of computers and of the scientific sampling technique known as "statistical quality control". In this phase, certain basic claims form information would be screened by computer for 100 percent of the cases and this information would be available to intermediaries and carriers. This is to prevent certain *flagrant* cost situations from slipping through the sampling net undetected. Also to be reviewed by PSRO on the 100 percent basis are all cases which the institution's own utilization review committee has *disapproved*, and all cases which are *in dispute* between institution and carrier. However, the most important part of the review is to be based on two series of *samples*; the first related to discharges and the second related to admissions. The operation of this sampling is explained in the following section.

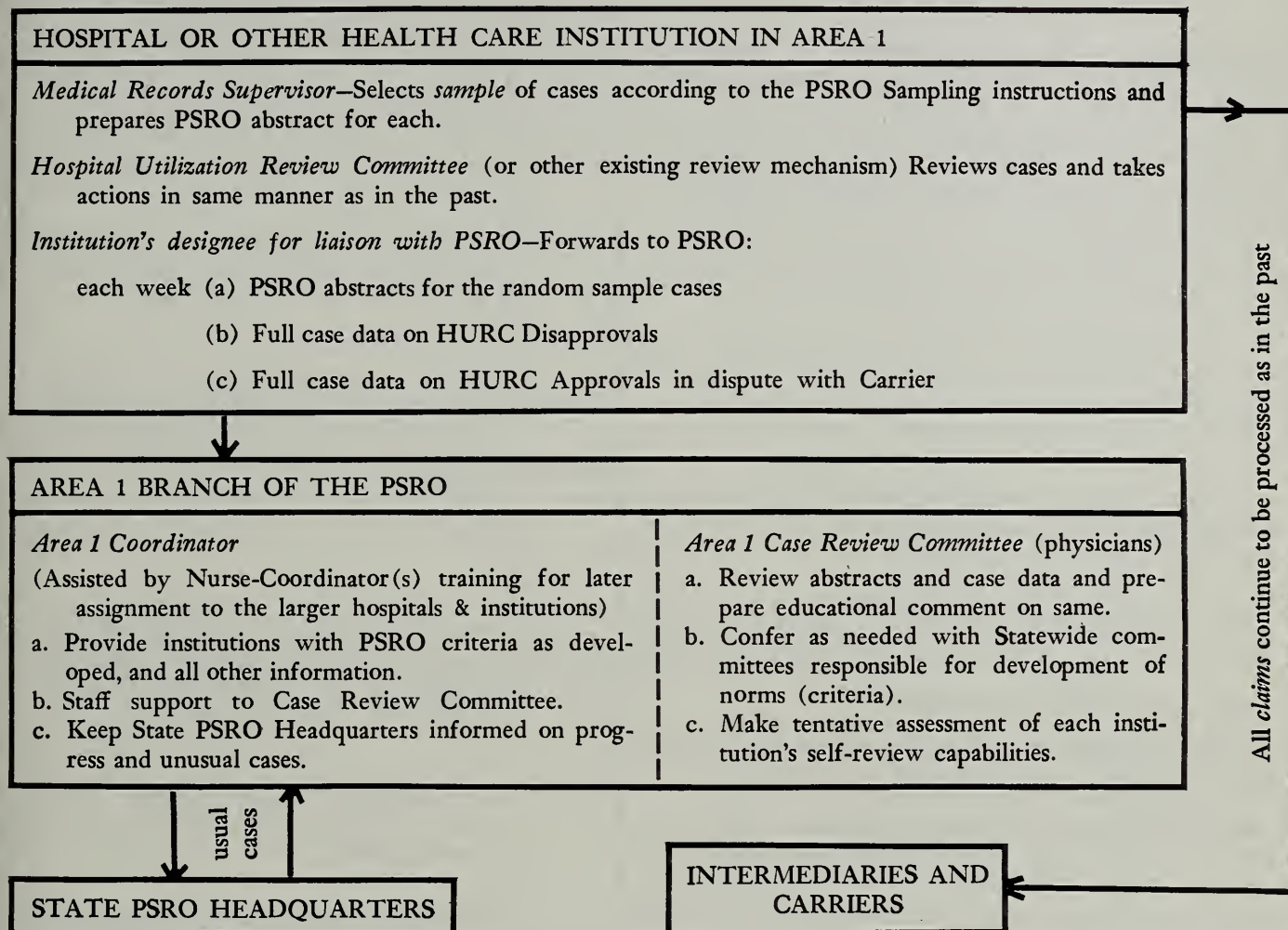
10. *Case Selection by Sampling*—First, the *sample of discharges* would be selected, possibly with the help of computer methodology, and special PSRO Abstracts would be prepared at the institution for each sample case. This Abstract would contain clinical data relating to *quality of care*—information of a kind not presently appearing on claims forms. The method of selecting this sample and the percentage sampled would provide adequate measures of the level of health care quality within the institution. All these discharge sample abstracts would then be given close screening by the computer for conformity with PSRO quality-of-care criteria. Cases for which the screening revealed significant departures from the criteria *would be reviewed in detail by the Area PSRO Case Review Committee*, who would then report their findings to the institution concerned, to the central PSRO headquarters, and to the intermediaries and carriers. These reports would pinpoint the situations needing attention in order to meet the PSRO objective that quality care be delivered at reasonable cost. They would be reinforced by a PSRO educational program, and, where necessary, by disciplinary approach. For example, an institution that did not react affirmatively to the PSRO reports might find itself subjected to a special regimen of more intensive review than described above. Information derived from the *sample of discharges* would also be used in the compilation of health care providers' "profiles" as referred to in P.L. 92-603.



## CASE DATA FLOW

During "Familiarization" Phase of PSRO  
(Prior to establishment of computer processing)

During this phase, PSRO becomes familiar with current situations at each Institution but does not intervene in the claims process. The Institutions become familiar with PSRO criteria and nature of the reviews to be made by PSRO in the future.



*Second*, the PSRO may at a somewhat later date introduce an additional type of sampling, namely, a *sample of admissions*. This would follow a procedure similar to that currently in use by a number of medical foundations (but used by them for 100 percent of admissions rather than a sample). The procedure consists of having a Nurse-Coordinator make entries from patient charts into a computer terminal at the institution, during the hospitalization of the patients. For example, the entries for any patient are made within the first day of the patient's admission and every week or so thereafter. The computer screens these entries against criteria, and instantly provides detailed advices as to those situations which vary excessively from the criteria. For such cases the Nurse-Coordinator consults the appropriate staff physician, who may decide to check further with the attending physician or in other ways investigate whether there is justification for the excessive variation. The procedure exerts a constant and immediate cost-reducing and quality-raising influence. Its principal shortcoming is that it seems to us to be very expensive (\$12 to \$14 per case has been quoted) and one Nurse-Coordinator can maintain supervision over a maximum of only 80 cases

at any one time. Thus, a 480-bed hospital with full occupancy requires at least six Nurse-Coordinators full-time. By using the sampling method, however, as we propose, much of the same pressure toward improvement can be maintained at a fraction of the cost and with a fraction of the personnel requirements. The abstracts of the sample of *admission* cases thus processed would be forwarded to the PSRO for information, but no further action. It should be noted that under the above review system, it would be *possible* to go into a third phase, namely screening of *all* cases. This could be done simply by increasing the size of the samples to 100%. It would not seem that the advantages of doing so, however, would be commensurate with the greatly increased expense and personnel time this would require.

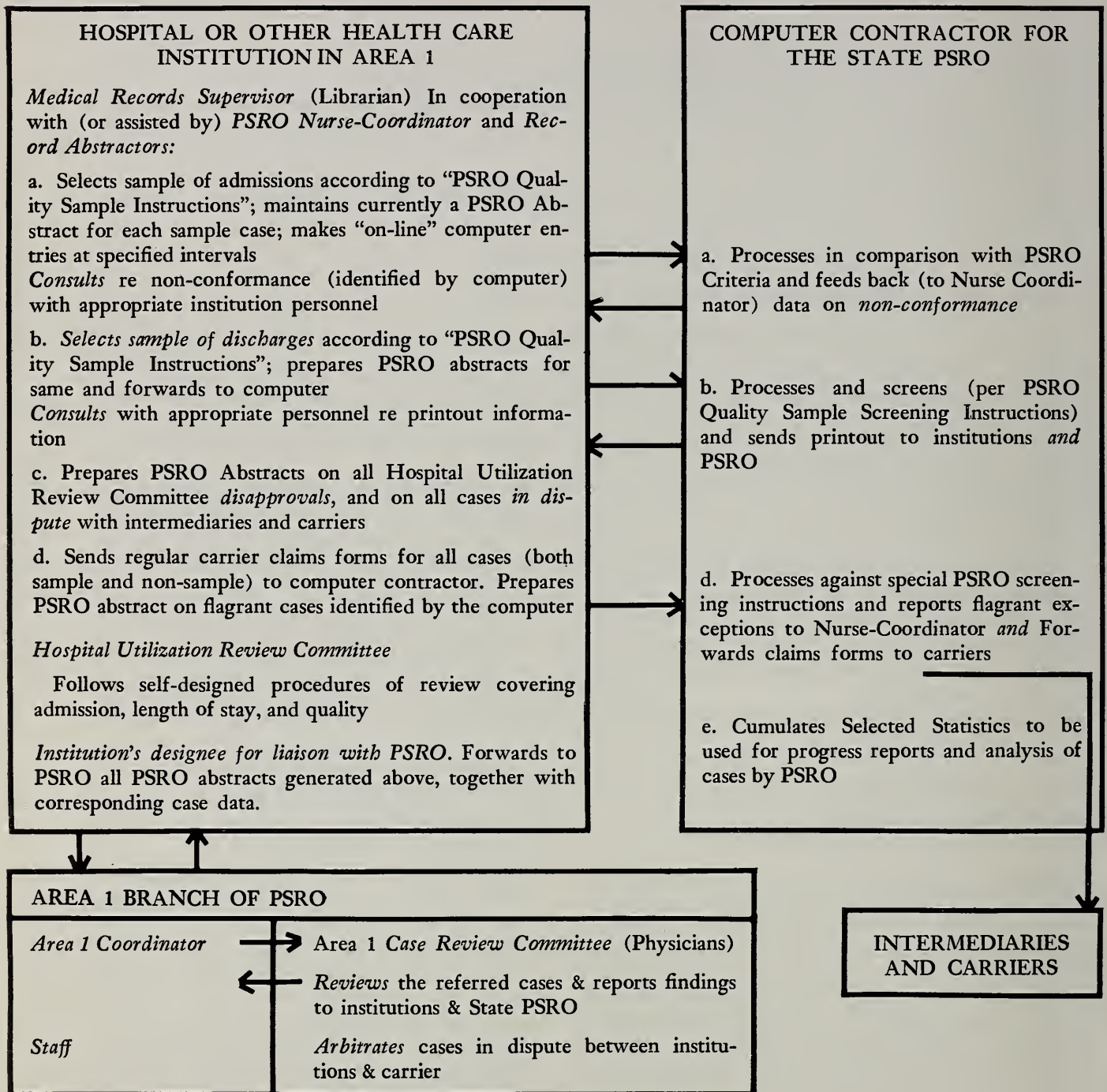
11. *Formation of Data-bank*—The final element in the review system herein proposed, is the *cumulation of the extensive clinical and cost information*, in a computer data-bank. These data would come from the sample cases and from the 100 percent cases previously described.

All data could be under control of the PSRO and most of the data would be available to insurance car-

## CASE DATA FLOW DURING "SAMPLING" PHASE OF PSRO

(after establishment of computer processing)

During this phase, PSRO reviews a representative (stratified probability) sample of the cases, plus certain types of cases not in the sample



riers and intermediaries. However, certain data of a very sensitive nature would be retained by the PSRO as confidential.

The computer data-bank information would be analyzed in numerous ways and used to update and improve PSRO criteria; to develop quantitatively-based educational programs on specific medical subjects related to quality and cost; to measure improvements in cost and quality; and to complete the cycle at some time in the future as research techniques are perfected for relating health care practices to patient health outcome.

### JUDICIAL

Council has approved a recommendation by the Advisory Committee of Past Presidents that a thorough review of the Constitution and By-Laws be conducted during the coming year. It is anticipated that, as a result of this review, a proposed revision will be brought to the House of Delegates in 1974. Because of the impending study, your Committee is only proposing at this time those amendments which it understands are especially needed. This applies particularly to that portion of Article IX of the By-Laws having to do with the com-



position of the Legislative Committee. The suggested amendments follow:

#### Constitution

##### Article IV

Amend Article IV by adding a sentence to read as follows: "As it applies to this Constitution and By-Laws, the word physician means doctor of medicine and doctor of osteopathy."

(The purpose of the above amendment is to make it possible for doctors of osteopathy, who are members in good standing of component medical societies, to become members of The Medical Society of Virginia.)

#### By-Laws

##### Article I

Amend the second paragraph of Section 1 by adding a sentence to read as follows: "As it applies to this Constitution and By-Laws, the word physician means doctor of medicine and doctor of osteopathy."

(The above amendment is also for the purpose of making it possible for doctors of osteopathy to become members of The Medical Society of Virginia.)

##### Article II

Amend the second sentence of Section 4 by deleting the word "twelve" and substituting the word "six". The sentence would then read "A member, whose dues are six months in arrears, shall be dropped automatically from the rolls of the Society".

(This amendment is necessary because of the Society's new computerized billing system.)

##### Article IX

Amend the first sentence of the third paragraph, Section A to read as follows: "The Legislative Committee shall be appointed annually to serve at the pleasure of the President and shall consist of not more than fifteen (15) members, with at least one member from each Congressional District."

(The purpose of the above amendment is to provide the Legislative Committee with the flexibility and overall strength it needs today. It will also permit the President to exercise his judgment in meeting problems which could well arise unexpectedly.)

THOMAS S. EDWARDS, M.D., *Chairman*

BERNARD I. LIDMAN, M.D.

CUSTIS L. COLEMAN, M.D.

#### ADVISORY TO VIRGINIA HOSPITAL ASSOCIATION

The Advisory Committee to the Virginia Hospital Association had no particular problems referred to it during the past year. It did, however, hold one joint meeting with the representatives of the Hospital Association for the purpose of keeping the lines of communication open and maintaining the excellent working relationship our two organizations have enjoyed over the past years.

We note with considerable pleasure that representatives of both Associations met often during the 1973 Session of the General Assembly and a coordinated legislative effort was the result. It is becoming more and more obvious that joint efforts of this kind are absolutely necessary if these two segments of the health care team are to survive and move ahead.

JAMES ASA SHIELD, M.D., *Chairman*

RICHARD F. CLARK, M.D.

JOHN T. MYLES, M.D.

K. K. WALLACE, M.D.

GERALD J. FISHER, M.D.

#### HIGHWAY SAFETY

A mandatory safety belt law will almost certainly be introduced in the 1974 session of the General Assembly. Your Highway Safety Committee is meeting to discuss at length the advantages and disadvantages of such a law. It intends to bring to the Annual Meeting a suggested policy position on this particular issue.

Your Committee has also been considering the effectiveness of an alcohol-counter-measures program as it affects the drinking driver. Such a program has proved effective in Northern Virginia.

ROBERT W. WADDELL, M.D.

*Chairman*

# Woman's Auxiliary . . . .

*President*.....MRS. WILLIAM J. REARDON  
*President-Elect*...MRS. DONALD F. FLETCHER, JR.  
*1st Vice-President*.....MRS. WILLIAM GORDGE  
*2nd Vice-President*.....MRS. WALLACE BAKER  
*3rd Vice-President*...MRS. M. PINSON NEAL, JR.  
*Corresponding Secretary*.MRS. HANS KLAPPROTH  
*Recording Secretary*.....MRS. RICHARD CLARK  
*Treasurer*.....MRS. HAROLD WILLIAMS  
*Directors*.....MRS. DAVID B. HILL  
                                  MRS. REUBEN F. SIMMS  
                                  MRS. JOSEPH M. STRAUGHAN

## **51st ANNUAL CONVENTION WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF VIRGINIA October 18, 19, 20 and 21, 1973 HOLIDAY INN-SCOPE NORFOLK, VIRGINIA**

A cordial invitation is extended to all members of the Woman's Auxiliary to The Medical Society of Virginia, their guests, and the wives of physicians attending the convention to participate in the social functions and to attend the general meeting of the Auxiliary. Members and guests are requested to register.

### **REGISTRATION—Holiday Inn—Lobby**

Thursday—October 18—1:00 to 5:00 P.M.

Friday—October 19—8:00 A.M. to 12:00 Noon

### **THURSDAY, OCTOBER 18**

3:00 P.M.—Pre-Convention Board Meeting—Mrs. William J. Reardon, President, Presiding (James-Elizabeth Rooms)

### **VaMPAC Banquet**

6:00 P.M.—Cocktails (East Ballroom)

7:30 P.M.—Dinner (West Ballroom)

### **FRIDAY, OCTOBER 19**

8:30 A.M.—Continental Breakfast (Hospitality Room, Suite 800) Members and guests

9:00 A.M.—Formal Opening of the 51st Annual Meeting (Portsmouth-Virginia Beach Rooms)

Mrs. William J. Reardon, President, presiding

Invocation and Memorial Service—Mrs. George Kelly, Chaplain

Pledge of Allegiance to the Flag

Pledge of Loyalty:

"I pledge my loyalty and devotion to the Woman's Auxiliary to the American Medical Association. I will support its activities, protect its reputation and ever sustain its high ideals."

Address of Welcome—Mrs. Robert Scott, President of Norfolk Auxiliary

Response—Mrs. M. Pinson Neal, Jr.

Presentation of Honored Guests—Mrs. William J. Reardon, President

Convention Announcements—Mrs. Joseph Passantino, Convention Co-Chairman

Convention Rules of Order—Mrs. Thomas H. Hunnicutt, Jr., Parliamentarian

Roll Call—Mrs. Richard Clark

Credentials Committee Report

Report of the Reading Committee—Mrs. Joseph M. Straughan

Report of the Treasurer—Mrs. Harold Williams

Report of the Auditing Committee—Mrs. Rudolph J. Naurath

Recognition of State Officers and Committee Chairmen

Greetings—Dr. Carl E. Stark, President, and Dr. John A. Martin, President-Elect, The Medical Society of Virginia

Recommendations from the Board—Mrs. Richard Clark

Report of the Finance Committee—Mrs. James M. Moss

Unfinished and New Business

Greetings from the Southern Medical Association Auxiliary—Mrs. W. Nash Thompson, President-Elect

Keynote Address—Mrs. Norman Gardner, Eastern Regional Vice-President, Woman's Auxiliary to the AMA

Report of Chairman of Delegates to 51st Annual Convention of the Woman's Auxiliary to the AMA—Mrs. William Gorge

Presentation of State Scrapbook—Mrs. Leon Jennings

Presentation of State President's Scrapbook—Mrs. Leon Jennings

Report of the Nominating Committee—Mrs. David B. Hill

Election of Officers

Adjournment



## ANNUAL LUNCHEON (French Quarter)

12:30 P.M.—Hospitality Time

1:00 P.M.—Luncheon—Mrs. William J. Reardon, President, presiding

Invocation

Guest Speaker—Dr. Perry MacNeal—"How to Prepare to Retire Gracefully"

Presentation of Awards—Mrs. Michael A. Puzak

Installation of Officers—Mrs. Norman Gardner

Presentation of President's Pin and Gavel—Mrs. William J. Reardon

Acceptance—Mrs. Donald F. Fletcher, Jr.

Presentation of Past President's Pin—Mrs. David B. Hill

Convention Announcements—Mrs. Charles S. Sale, Convention Co-Chairman

Adjournment

4:00 P.M.—Showing of Selected Films (Nansemond Room)

The Medical College of Virginia Alumni Association

6:00 P.M.—Reception—(Portsmouth-Virginia Beach Rooms)

7:00 P.M.—Dinner (East Ballroom)

The University of Virginia Alumni Association

6:30 P.M.—Reception (West Ballroom)

7:30 P.M.—Dinner (West Ballroom)

## SATURDAY, OCTOBER 20

8:00 A.M.—Past President's Breakfast (Suite 700/701)

8:30 A.M.—Continental Breakfast for Members—(Hospitality Room, Suite 800)

9:00 A.M.—Post-Convention Board Meeting (Portsmouth Room)

Mrs. Donald F. Fletcher, Jr., President, presiding

All new State Officers, Directors, Committee Chairmen, County Presidents and Presidents-Elect are requested to attend. Out-of-state Auxiliary guests are invited.

1:00 P.M.—Bus tour to THE HERMITAGE FOUNDATION MUSEUM

3:00-5:00 P.M.—Tea at CHRYSLER MUSEUM—Courtesy of Woman's Auxiliary to the Norfolk County Medical Society (those on bus tour will be taken from The Hermitage to Chrysler Museum for the tea—others not going on tour may walk from Holiday Inn to the Chrysler Museum).

The Medical Society of Virginia

7:00 P.M.—Cocktails (Portsmouth-Virginia Beach Rooms)

8:00 P.M.—Dinner (East and West Ballrooms)

## Woman's Auxiliary to the American Medical Association

1973 marked a year of change and forward movement for the Woman's Auxiliary to the

American Medical Association as they entered their 51st year of service at the annual convention held in New York City, June 24 to 28.

The Virginia Delegation was composed of Mrs. William Reardon, President, Mrs. Donald Fletcher, President-Elect; Mrs. William Gordge, First Vice President; Mrs. William Beckenstein, State AMAERF Chairman; Mrs. Charles Smith, State Health Education Chairman; and Mrs. L. C. Strong, Newsletter Editor. Three alternate delegates were also present, Mrs. George Kelly, Mrs. W. Nash Thompson and Mrs. Carl Stark.

Starting its 51st year with a record 90,000 membership, the Auxiliary enlarged its program committee to facilitate its expanded activities and realigned its membership classification to correspond with AMA Bylaws. A complete revision of the Bylaws was passed during the meetings presided over by Mrs. Robert F. Beckley, President. She particularly noted the many forward steps taken by the Auxiliary in relations with constituent and health-related organizations. "We are very proud of the many meaningful activities carried out at the county level. Each of the states and counties has strived to improve the quality of life for all in their communities."

Harry Schwartz, Ph.D., member of the Editorial Board of the *New York Times* and author of "The Case for American Medicine" was the keynote speaker. He told Auxiliary members to help make medical care more economical with a stress on preventive medicine. "Get to know the facts", he said, "The facts are better than the detractors of American medicine would have you believe. If you're going to get sick, get sick in America. It's the best place to get medical care. Most doctors are too busy to know the facts and this is where you can help. Good American medicine is *something you all should cherish and try to defend.*"

At the annual luncheon honoring officers and trustees of the American Medical Association, awards were given to auxiliaries whose contributions to AMAERF had been outstanding. What a thrill for the Virginia delegation

to have two awards go to their State. Eastern Regional Award for having the largest increase—our final total \$27,181.39! Isn't that fantastic! Special Merit award for achieving \$15.28 per capita contribution. A special vote of thanks goes to all AMAERF Chairman and their members for making this possible.

Vincent J. Fontana, M.D., Chairman of Mayor Lindsay's Task Force on Child Abuse and Neglect, kicked off one of the Auxiliaries priority programs. In urging preventive action, Dr. Fontana said, "Child abuse, a symptom of the violence running rampant in our communities, results in social disorganization and disintegration. This generation's battered children, if they survive, will be the next generation's battering parents."

Preventing child abuse was selected as a key Auxiliary goal during the annual program forecast. Other priority programs are political action and legislation and promoting AMA membership. \$1,000,000 was set as the goal for AMAERF and attention was brought to the dire financial needs of the medical schools.

During the Idea Exchange of State Reports, the Virginia Report dealt with our "Commitment and Involvement with Other Organizations in the Field of Health Education".

Mrs. Donald Fletcher nominated Mrs. William Reardon for the nominating committee. Following the voting, Mrs. Reardon was one of the five selected for this committee.

Membership was another area to receive a National award for Virginia's increase over last year. In the Program Forecasts by National Chairmen, two Virginia counties were singled out for their contributions this past year. Tazewell in the area of Volunteer Health Services for manning the local hospital during a strike and Northampton-Accomac for its In-

ternational Health Project in conjunction with Doctors' Day.

It was indeed a proud Virginia Delegation—to be representing such an outstanding State. We were proud of our National Director, Mrs. Daniel Anderson of Norfolk who was a member of the Bylaws Revision Committee and will handle the Reports Committee this coming year. She will continue as a National Director for 1973-74.

Mrs. William Reardon was appointed as the Eastern Regional AMAERF Chairman for the 1973-74 year.

Mrs. Willard C. Scrivner was installed as President. In her inaugural address she said "Our goal is clear—to aid the medical profession in its objectives and work for improvement in the quality of life through better health care for every American".

Mrs. Margaret Wolfe, executive director of the Auxiliary was honored on her retirement after 31 years of service. Miss Hazel Lewis will succeed her in this office.

The newest fashion note is the special Frankie Welch designed AMAERF scarf. These are now available from Mrs. William Beckenstein your State AMAERF Chairman. There are numbered scarves at \$25.00 (50 of the 1,000 were numbered and we do have three left in Virginia); the unnumbered scarves will be sold for \$10.00. All have been imprinted "First Edition" and are being sold throughout the United States by the AMAERF Chairman. The colors are navy blue, yellow, green, white in a dogwood design. We will have these at the Workshops in September and at the convention. Don't miss out, let Naomi hear from you. Each county receives the credit for the scarf sold. Each county auxiliary is invited to sell for AMAERF at the State Convention. Please contact Naomi Beckenstein for space.



## **PSRO and Its Ramifications**

**I**T ALL BEGAN LAST YEAR when Senator Wallace F. Bennett (R. Utah) sponsored Public Law 92-603 (Section 294 F, beginning on page 101) which "provides . . . HEW with the mandate to administer those portions of the law that pertains to Professional Standards Review Organizations (PSRO)." P.L.92-603, at the present time, deals specifically with Medicare, Medicaid and maternal and child health program patients. We are advised Director William I. Bauer, M.D., "will be working with the National Professional Standards Review Council and with state and local organizations which are involved in establishing . . (such) . . review mechanisms."

This sounded serious and at The Medical Society of Virginia meeting in November 1972, an ad hoc Peer Review Committee, with Robert L. Keeley, M.D., of Roanoke, as chairman, was appointed for the purpose of developing a Virginia plan for PSRO with the request that this information and the committee recommendations be presented to the House of Delegates at the Norfolk meeting of the Society in October. Dr. Keeley and his committee members have devoted a world of time to this matter. On July 8 they presented definitive recommendations and by-laws to implement these suggestions to Council. The proposed plan will, in part, designate Virginia as one geographic area with five subdivisions. These recommendations in turn were forwarded to component societies for consideration before the Norfolk meeting this October. A copy of the plan may be found in this issue of the journal. All delegates are urged to review this material.

Meanwhile various actions dealing with PSRO have been taken by the 50 state societies and the District of Columbia. A questionnaire prepared by the AMA was sent to the 51 societies during the early summer in order to determine what decision, if any, these groups had reached. Every society responded to the query. A response of 100 percent is virtually unheard of, and reflects the significance of the poll.

The July 23 issue of the *American Medical News* summarized these findings, and stated "43 state medical societies have decided to sponsor or support some type of formal affiliation with the government's new PSRO program." Seven societies did not plan to take any action on PSRO status. Of these seven societies five "prefer to remain independent of the federal government, operating state level information centers for locally based PSRO contractors." Texas and Oklahoma are undecided, but hope that P.L.92-603 may be repealed. Louisiana wants no part of it and rejected PSRO on the basis that "The mechanics of the law do not permit local regulation . . (and) . . all control is vested in federal powers that flow from the top down." Louisiana also envisions "No single organization could possibly serve the dual role of representing . . . the patient's interest and the physician's interest

on one hand, and, on the other the government's interest to effect economy by rationed health care."

Louisiana has four supporters in Illinois in the form of three physicians and the *Association of American Physicians and Surgeons*. They have filed a federal court suit "challenging the constitutionality of last year's federal mandate for peer review in the Medicare and Medicaid programs . . . (charging) . . . that PSRO will violate the First, Fourth, Fifth, Seventh and Ninth Amendments."

Senator Bennett has surfaced again, claiming that PSRO operating areas "generally" should include a minimum of 300 and a maximum of 2500 licensed practicing physicians. According to the senator, this yardstick is designed to implement the "intent of the law (which) is to prohibit state-level PSRO in all but 15 to 19 small states." By a happy coincidence, in terms of the number of physicians, Utah is fifteenth from the bottom in the 50 states and the District of Columbia. This serves to remind us that physicians vote also, and perhaps the senator from Utah comes about as close as one can to having his cake and eating it too.

A major factor, of course, depends upon how adamantly HEW continues to regard the role the states as a whole are permitted to play, or whether smaller geographic areas within the states may become the controlling factors. Our President Carl E. Stark, in a meeting with Dr. George Gardiner, Health Director of Region III, (in which region Virginia finds itself) presented the recommendation of the ad hoc Committee on Peer Review that proposed one state district with five subdivisions. The press account of this interview has not been entirely reassuring. We doubtless will learn more about this before the October meeting.

In an effort to bring as much information as possible to the delegates who must vote on the various aspects of this matter, two articles dealing with PSRO have been prepared for publication in this issue of the *Virginia Medical Monthly*. Dr. James C. Respass of Charlottesville and associates, have presented the affirmative side and Dr. W. Leonard Weyl of Arlington has given the negative. All members of the society, and especially the delegates, are urged to read these articles before they attend the Norfolk meeting. The practice of medicine in America, as we know it today, will probably hinge upon the decisions made by our delegates and those of the other 50 societies. May their decisions be wise ones!

H. J. W.



## **Calendar of Events**

WALTER L. THOMAS SYMPOSIUM ON GYNCOLOGICAL MALIGNANCY AND SURGERY—Duke University Medical Center—Durham, North Carolina—September 21-22, 1973.

TENNESSEE VALLEY MEDICAL ASSEMBLY—Read House—Chattanooga, Tennessee—October 1-2, 1973.

NATIONAL CONFERENCE ON PHYSICIANS AND SCHOOLS—Sponsored by American Medical Association—LaSalle Hotel—Chicago—October 4-6, 1973.

AMERICAN PSYCHIATRIC ASSOCIATION, SOUTHEASTERN DIVISIONAL MEETING—Sponsored by Neuropsychiatric Society of Virginia—Conference Center—Williamsburg—October 7-10, 1973.

ANNUAL CARDIOVASCULAR SYMPOSIUM—Sponsored by Council on Clinical Cardiology—American Heart Association—Colony Inn—Williamsburg—October 11-13, 1973.

THE MEDICAL SOCIETY OF VIRGINIA—Annual Meeting—Holiday Inn/Scope—Norfolk—October 18-21, 1973.

SOUTHERN MEDICAL ASSOCIATION—Annual Meeting—San Antonio, Texas—November 12-15, 1973.

AMERICAN MEDICAL ASSOCIATION—Clinical Session—Anaheim, California—December 1-5, 1973.

CONFERENCE ON TEAMWORK FOR THE HANDICAPPED CHILD—Sponsored by the Virginia Council on Health and Medical Care—Hilton Inn—Virginia Beach—December 9-11, 1973.

AMA NATIONAL LEADERSHIP CONFERENCE—Marriott Motor Hotel—Chicago—January 25-27, 1974.

AMA-AMPAC PUBLIC AFFAIRS WORKSHOP—Washington-Hilton Hotel—Washington, D. C.—March 15-17, 1974.

\* \* \* \* \*

The Medical Society of Virginia maintains a registry of medical meetings and programs of interest to Virginia physicians. You can help by keeping us advised of any meetings scheduled in your area. This will not only help others avoid conflicts but also provide helpful information on opportunities for continuing education.

## **New Members.**

The following new members were received into The Medical Society of Virginia during the month of June:

Richard D. Alderfer, M.D., Radford  
Mathias John Coleman, M.D., Arlington  
William Malcolm Crouch, M.D., Richmond  
Robert Neal DeAngelis, M.D., Springfield

Paul Jay Fink, M.D., Norfolk  
 Janice F. Gable, M.D., Damascus  
 Richard Thomas Griffey, M.D., Norfolk  
 Michel N. Haddad, M.D., Newport News  
 Stuart H. Hamilton, Jr., M.D., Richmond  
 Richard Joseph Hart, Jr., M.D., Annandale  
 Herbert Whitley Harvey, M.D., Danville  
 Donald David Haut, M.D., Baileys Cross-  
 roads  
 Marion K. Humphries, III, M.D., Roanoke  
 Sung Yong Kim, M.D., Portsmouth  
 James Nicholas Lampros, M.D., Roanoke  
 Kenneth T. Larsen, Jr., M.D., Warrenton  
 Charles W. Nickerson, M.D., Newport  
 News  
 Gerald A. Ravitz, M.D., Portsmouth  
 Vicente N. Rono, Jr., M.D., Chesapeake  
 Carl Franklin Root, M.D., Wytheville  
 Rolando J. Santos, M.D., Springfield  
 David William Scott, III, M.D., Charlottes-  
 ville  
 James Asa Shield, Jr., M.D., Richmond  
 Richard Hugh Tabor, M.D., Virginia Beach  
 Mitsunobu Toyama, M.D., Galax  
 Young-Ok Youn, M.D., Richmond

### **Another Trip is in the Offing—**

At the last meeting of the Council, it was decided the next travel adventure for members of The Medical Society of Virginia would be to Europe on July 8, 1974. This trip is again sponsored by INTRAV.

The European Adventure is to Geneva, Vienna and West Berlin, with side trips to Paris and Italy. In Geneva the hotel is the Inter-Continental, in Vienna also the Inter-Continental and in West Berlin the Hilton.

Full information will be mailed early in the year, so be on the look-out for it. This will also be a never-forgotten Adventure and will prove to be very popular.

### **Dr. McGuire Outstanding Ophthalmologist.**

Each year the Section on Ophthalmology at the annual meeting of the Southern Medical Association honors an outstanding ophthalmol-

ogist who has made important contributions to American Ophthalmology.

This year, Dr. William P. McGuire, Winchester, has been chosen. He has contributed significantly to contemporary American Ophthalmology. He will be presented a plaque at the San Antonio meeting on November 13th which has been designated "William P. McGuire Day".

### **Dr. Nina Bencich Woodside,**

Haymarket, will be the first director of the newly established Center for Women in Medicine at The Medical College of Pennsylvania. She is a cum laude graduate of the College in 1957. Dr. Woodside is the first woman in the Washington, D. C. Government to receive the highly respected Federal Woman's Award. She is a member of the Secretary's Advisory Committee on the Rights and Responsibilities of Women in HEW.

### **Seaboard Medical Association.**

At the annual meeting in Raleigh, Dr. A. A. McLean, Jr., Murfreesboro, N. C., was installed as president. Vice-presidents are Drs. Charles J. Sawyer, Ahoskie, N. C., Albert Tyson Jennette, Wilson, N. C., Julian W. Selig, Norfolk, and Richard K. Neal, also of Norfolk. Dr. Richard A. Mladick, Norfolk, was re-elected secretary-treasurer.

The 1974 meeting of this Association will be held at the Holiday Inn, Nags Head, June 13-16.

### **Stuart Medical Society Teaches E. M. T. Course.**

In January of 1973, The Medical Society of Virginia's newest component chapter, Stuart Medical Society, began its first project. We were approached by the Patrick Henry Community College and asked to teach a training course for our local Rescue Squads. All members of the society agreed that this would be a worthwhile project for our community, the hospital and the society. We, of course, did not know that the program involved seventy-



five hours of intensive lectures, movies, slide presentations, practical demonstrations of bandaging, splinting and many other items of which we were only vaguely aware were necessary for the proper training of Emergency Medical Technicians.

We are a small group of doctors living in a truly rural area. We need all the help we can get in the care of our widely scattered patients. Many of our house calls may be as far away as twenty miles. Many of those miles are on poor gravel roads, or worse. The help these volunteer rescue workers have given has been great in the past and, after this training course, we believe it will be even greater.

The course was designed by the American Academy of Orthopedic Surgeons and consists of twenty-five lessons, each lasting approximately three hours. The State Health Department was helpful in supplying much of the needed equipment and films for the course. Each member of the society was assigned lectures which were related to his specialty or special interest. We were ably guided and assisted by a field representative for the State Health Department, Mr. Thomas O'Neil, who was invaluable.

In August we graduated some 38 Emergency Medical Technicians. We feel that this project was worthwhile, fulfilling and that it gave us the feeling that the people of our county are united behind their doctors and do appreciate what we have done. This last feeling is the best.

If any other group of doctors be asked to teach this course, we heartily recommend that they teach it. It will help their community, their patients, their hospital and themselves.

EDWIN T. McNAMEE, JR., M.D., *Secretary*

### **McGuire Lecture Series.**

The 45th Annual McGuire Lecture Series will be held at the Medical College of Virginia, November 8-9. This year the subject will be Immunology and the Rheumatic Diseases and is being presented by the Department of Continuing Education, Division of Connective Tis-

sue Diseases and the Virginia Chapter of the Arthritis Foundation.

Dr. Morris Ziff, professor of Internal Medicine and Director of the Arthritis Unit of the University of Texas Southwestern Medical School, Dallas, will be the McGuire Lecturer. His lectures will be on Synovial Membrane and Viruses and the Connective Tissue Diseases.

The Guest Faculty will be Drs. John Baum, University of Rochester, Rochester, N.Y.; Richard S. Bryan, University of Minnesota, Rochester; Rebecca Buckley, Duke University, Durham; John J. Calabro, University of Massachusetts, Worcester; John S. Davis, IV, University of Virginia; Edward C. Franklin, New York University, New York; David A. Horwitz, University of Virginia; William M. O'Brien, University of Virginia; Naomi Rothfield, University of Connecticut, Hartford; Gene H. Stollerman, University of Tennessee; and Roby C. Thompson, Jr., University of Virginia. The Medical College of Virginia faculty will be Drs. W. Kenneth Blaylock; Charles L. Cooke; W. Robert Irby; Charles L. McDowell; Charles W. Moncure; P. Franklin Mullinax; Duncan S. Owen, Jr.; Warren H. Pearse; Elam C. Toone, Jr., and Marion V. Waller.

Further information may be obtained from the Department of Continuing Education, School of Medicine, Medical College of Virginia, Box 91, MCV Station, Richmond, Virginia 23298.

### **Neurologic Problems of Infancy and Childhood.**

This postgraduate course is being cosponsored by Pediatric (Child) Neurology of the University of Virginia, Medical College of Virginia, and King's Daughters Hospital, Norfolk, and will be held at the Cascades Meeting Center, Williamsburg, December 7-8.

Members of the Faculty are Drs. Donald P. Becker, Medical College of Virginia; Miriam Carmichael, State Department of Health; Fritz E. Dreifuss, University of Virginia; James E. Etheridge, Jr., King's Daughters; Richard

Johnson, Johns Hopkins Hospital; William Logan, University of Virginia; Joan Meiller, Medical College of Virginia; and Edwin C. Myer, Medical College of Virginia.

Enrollment is limited to sixty. Full information may be obtained from Dr. Ronald B. Davis, Medical College of Virginia, Box 211, MCV Station, Richmond 23298.

### **Leukemia Society Offers Booklet.**

In line with its broadening professional education program, the Leukemia Society of America has produced a new booklet designed to serve as a study aid for advanced students, nurses and paramedical personnel. The publication, titled "Leukemia—The Nature of the Disease" may be had without cost from the Leukemia Society of America, Inc., 211 East 43rd Street, New York, N. Y. 10017.

### **Physician Needed**

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filiated with medical school. Excellent retirement and leave benefits. Nondiscrimination in employment. Contact Chief, Spinal Cord Injury Service, VA Hospital, Richmond, Virginia 23249. Telephone 804-233-9631, Ext. 272. Equal Opportunity Employer. (*Adv.*)

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## **Obituary . . .**

### **Dr. Wilbur Ross Southward, Jr.,**

Richmond, died July 25 at the age of seventy. He was a graduate of the Medical College of Virginia in 1928. Dr. Southward was in private practice in Richmond for 12 years until World War II when he commanded the 264th Amphibious Medical Battalion in the Pacific and rose to the rank of Colonel. In 1946 he became chief of professional services for the Veterans Administration southeast district. Dr. Southward was also chief of emergency health services of the State's Office of Civil Defense and received the National Pfizer Award of Merit in 1966 for his work in civil defense medical care. He joined the State Health Department in 1954 as director of the bureau of

chronic disease control and retired in January as director of the bureau of preventive medical services.

Dr. Southward was an active member of The Medical Society of Virginia, having joined in 1931.

His wife and two sons survive him.

### **Dr. Louis Philip Bailey,**

Nathalie, died August 5. He was sixty-seven years of age and graduated from the Medical College of Virginia in 1933. Dr. Bailey had been a member of The Medical Society of Virginia for thirty-eight years.

His wife and a son survive him.



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### Guest Editorial . . . .

#### Physician Heal Thyself!

(That is, if you want care!)

THIS QUOTATION had a different original meaning, but is apropos to the current status to which physician medical care has sometimes degenerated. Some years ago it was considered, by some at least, to be a compliment to be asked by a colleague to care for him or a member of his family. It was, and still is, considered by many to be very poor ethics for a physician to treat his own family; if this is poor ethics then it should be abundantly poorer judgment for him to attempt to treat himself. This is an area where no circumspect physician should trust his own judgment. The self-administration of drugs and narcotics is the fundamental step in physician addiction and certainly a tragedy for anyone, even to a non-professional. Medical personnel addiction and abuse of drugs is a major if often ignored problem.

How can a physician be so blind? Our country has (supposedly) the finest medical care available in the World. Of growing concern to many, both in and out of the profession, is this "superb care" not being available to the masses of people needing it most, but readily available to the financially secure. The good health of those providing this care should receive some attention if they are to function optimally and care for the maximum number of people most effectively.

Too often a physician, ill with a simple upper respiratory infection or a vague pain here or there, either: (1) doesn't want to bother a colleague; (2) would prefer to treat himself with a self-administered antibiotic and antihistamine or other Rx—and by treating himself—"remain in complete control of the situation"; (3) is embarrassed by having to admit to someone else that it is possible for him—"the great healer"—ever to have an illness or physical indiscretion himself; (4) was rebuffed once or more times after having asked a colleague to "give him a check-up"—to have been told—"Oh, there's nothing wrong with you—come back to see me any time you're sick"; (5) or perhaps he did decide to have a "check-up", and found a colleague to do it, and was then asked "what tests he wanted to have done"—yes, it happened to me—and my "physical exam" included nothing below the belt—certainly not a rectal examination or sigmoidoscopic examination. Was this physician too embarrassed to ask a colleague to drop the pants and assume knee-chest? If this is true it is the first time I have seen him embarrassed; (6) perhaps the

"non-paying" colleague doesn't deserve anything better than "free medical care"—but many free clinics in which I have had the privilege of serving have given their clients much better medical care. The physician asking a colleague to help in his medical care would likely much prefer to pay the usual and customary fees of his peer and skip the bother of searching for a gift, probably more expensive than the care costs would have been to begin with, and certainly very likely to be either unwanted, inappropriate, wrong color or texture, or something he is allergic to or finds distasteful—and end up either given to someone else, or high on the shelf of a dark closet, garage or attic.

"Poor care is, in this instance, worse than no care", I believe would be an acceptable assumption. If one had rather not be bothered, then have the courage to say so, and advise your colleague to seek help from someone who is emotionally better geared to function in this sensitive area.

It has been my privilege to have had a part in the medical care of somewhere between 100 and 200 colleagues, and their families and close relatives; I do not keep a separate record of this. These people get exactly the same care I give my other private patients, and they get fussed at, pleaded with, or threatened—"just like anybody else"—and if they want or demand preferential or scarlet carpet treatment, or handled in special ways, then perhaps they would be happier elsewhere, especially if their modesty is offended by a sigmoidoscopic or a digital rectal examination. If I feel they should quit smoking, or quit drinking, or lose 50 pounds, or some other such important project, I feel it is a waste of time to tell them to "try to reduce your smoking, that is if it doesn't make you tense or nervous," or "if omitting your six highballs a night doesn't interfere with your routine", or "try to lose a few pounds". Hogwash, and waste of both your and my time!

The next time a colleague, who probably has stewed with the idea for some time, asks you to give him a physical examination or treat his cold, or consult with him about his weight, or blood pressure problem—I hope you will—shades of Hippocrates—try to help him. He probably would prefer to pay your usual fee if you would let your bookkeeper inadvertently "bill him"—that is, if the \$ \$ are that important to you. Also, it may be really that he *needs someone* to talk to about an entirely different kind of problem than what he asks you about initially. A physician can need emotional support too—he also has tensions and frustrations, and perplexing problems. It might just be that your listening to his problem might be the key to prolonging his useful life. Everyone has at times been overly curt, not only with patients, wives, families, colleagues, children, parents, siblings, and even pet dogs; such is the penalty of our tension settings, but think for a minute—is the above individual you? And do you have any desire to change?

There are many areas of criticism our profession is subject to, and much criticism is fully justified—we must make every effort to clean it up in all ways we can; this is only one.

ANONYMOUS  
(Editor: For obvious reasons.)



# Adolescent Competence

## A Different Point Of View

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**T**HOSE OF YOU who are here work with adolescents daily and with the problems that they create for society and that society creates for them. It would seem ill considered for me to suggest that I know more of your business than you do. It would be presumptuous for me to assert that the problems of delinquency are really very simple—that all you need is a little compassion for the young, or that the problems are all due to too much permissiveness—just get firm and they'll go away. You know far better than I how complex and insoluble are many of the problems of youth and society.

What little I may have to offer, I can only offer from the perspective of someone a little distant from these problems. I have thought about them in a general context, so I may be able to provide you with a slightly different way of looking at these problems. After all, no one's effectiveness rests on knowing all of the answers. Our effectiveness stems from having some skills at analyzing problems and at adjusting our approach as we work with these problems until we find effective solutions.

After this, I will go back to being a college professor and you will go back to dealing with the nitty-gritty day to day problems of your work. If the crossing of our paths is to mean anything, hopefully it will mean that I've given you an additional thought or two that may make your task a little more understandable and your efforts a little more effective. If I

contribute that, then I too will have been effective. If I leave you muttering about stupid professors, or with bored looks on your faces, then I will have failed to be effective in my self-appointed task. My task is that of trying to approach the human condition from a psychological perspective, and perchance contribute a little to making all of our lives more pleasant and livable. And when I say *all*, I include *you*, *me*, and the *delinquent*.

So let me talk to you about three strands of thought which are evolving in psychology. It seems to me that they can be twined together to provide a perspective from which to think more effectively about adolescents, and from which to interact more effectively with them whether from your view they be delinquents or just incomprehensible. Considering the title of my talk, it may come as no surprise to you that the first organizing concept and idea that I would like to introduce is that of *competence*. The second is that of *identity*. The third is that of *pro-social behavior*.

Psychologists have their fancy terms and I shall rely on them since I've wandered in that land for many years and speak the language. In fact, to speak of competence, I have to speak of other terms that the natives consider basic. It's a common observation apparent to most anyone that people behave in certain ways because they seem to want something, to be impelled by something, or to want to get away from something. Psychologists call these operating forces in human behavior *motivation*. Sometimes we make a distinction and speak of drives when we refer to raw, unlearned forces such as hunger in the newborn baby, and of motives when we speak of highly elaborate and learned patterns, such as the food

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seeking and food consumption of adults in civilized society. For our purposes, it is enough to draw this general distinction.

Some ten years ago one of the more thoughtful scholars in our field, Robert W. White, reviewed (1959) the thinking and research of psychologists up to that time, with regard to the concept of motivation. He noted that generally speaking, psychologists have tried to account for human motivation on the basis of certain fundamental primary drives. They have argued that activities as diverse as running for President, scaling mountains, sitting and whittling, birdwatching, playing contract bridge, and anything else you can think of, are all simply elaborations of a few primary drives such as hunger, thirst, and sex. He then noted that it just didn't seem particularly feasible to fit all of human behavior into that particular mold. He argued, rather, that observation of infants chewing on their rattles, biting on their toes, dropping their toys, poking their own eyes and other people's, and what not and of even more elaborate behaviors, including much of the playfulness of children and adults, simply couldn't be accounted for in those ways. He suggested, rather, that an important characteristic of all people is that they are generally active. Further, an important motivational aspect of that activeness, aside from the obvious concern with satisfying basic drives, is the urge to develop a capacity to interact effectively with the environment; that is, to develop competence. White spoke of the urge to develop competence as *effectance* motivation and the achievement of it as satisfying in that it provides a sense of *efficacy*. Otherwise translated, he advanced the notion that kids are curious, if you will; that when not driven by compelling basic forces such as hunger or exhaustion, babies, kids, adolescents and adults are moved to explore their world and to develop a sense of competence in dealing with it. Further, they enjoy becoming competent and, in addition, learn much from doing so. I will not bore you with the details of his reasoning and analysis of other points of view. Let me just say that I find his argument a convincing one,

and I find much evidence to support it as a useful way of thinking about people and their behavior.

Let me point to some pertinent implications of this view of man. Man is exceedingly unskilled and ineffective at birth, but he is also exceedingly plastic. He is motivated to seek efficacy, effectiveness, and understanding in relation to his environment, that is, to become competent. As a consequence, he learns many things. White emphasizes, however, that "Strong motivation reinforces learning in a narrow sphere, whereas moderate motivation is more conducive to an exploratory and experimental attitude, which leads to competent interactions in general, without reference to an immediate pressing need." (1959, p. 330) In other words, if the internal or external driving forces are too strong, the exploration, the curiosity, and *the development of general competence in a person will be reduced*. In that sense, playfulness and time for it are critical, and in that sense all work and no play *does* make Jack a *dull boy*.

Further, one issue which does loom large in juvenile delinquency, and in fact our whole generational gap today is the issue of permissiveness versus control. The battle rages back and forth, shedding much heat and little light. On the one side we have those who swear that all the problems of our youth are due to permissive child rearing. "Down with Dr. Spock and back to the wood shed," they cry. (Of course they haven't read Dr. Spock). On the other side we have the cry that society is repressive, schools are over-controlling, and that all of the evils stem from too much control, too much discipline. So down with the establishment and up with humanity. (They haven't read much history.)

If what White has to say has any validity at all, and frankly I think it has considerable, then both of these extreme points of view are unsupportable for clear and substantial reasons. Consider the position of the return to stern authority. Remember just a moment ago we said that strong motivation reinforces learning in a narrow sphere; moderate moti-



vation is more supportive of exploratory and experimental interactions which lead to broader learning. The moderate motivation of playfulness and play is critical to broad, general development of competent interaction with the environment.

The strong motivation and stern control of authority readily become *too* strong and thereby limit the development of competence. Therein lies the greatest danger. What then of permissiveness? Isn't that ideal? No, competent mastery of the environment is impossible unless the environment is responsive. Unless behavior has consequences, how do you learn? If all is permissiveness and all is sunshine and light, regardless of your skill or what you do, how do you learn? You don't. That's hardly the answer either. Moderate motivation in the spirit of playfulness doesn't mean that your behavior has no consequences, whether you're three months old or thirty-nine. What it means is that the consequences are moderate so that you *can* try out new approaches, and develop a general sense of mastery. Then when you face serious problems you will have the competence to cope with them.

I'm sorry, but for those who would like a simple answer, White's concept of competence is of little comfort. His concept of motivation suggests that we need a more complex approach to the effective socialization of youth than either simple permissiveness or absolute control.

So let's move on to our second strand of thought and see what the concept of *identity* adds to what White has given us as a beginning. Here I want to appeal to the thought and work of one of the most distinguished scholars in our field, Eric Erikson, who has written much about youth in this modern age. Erikson's work has been primarily observational and therapeutic. He is not an experimenter in the sense that many behavioral scientists are but he is an exceedingly astute student of behavior who finds more comfort in checking out his conclusions by further observation than in arguing that we know all of the answers. His work has ranged from

the study of the morale of submarine crews in combat to the analysis of the psychological development and adjustment of people in different societies. It has also included years of intensive therapy with children and adults in our society. He has organized his thinking about man and youth from the perspective of the thoughtful observer, scholar and therapist.

Erikson emphasizes (1968, p. 50) as a unique characteristic of the human among all animals the characteristic which he calls *identity*. That is, humans have an awareness of the uniqueness and continuity concerning the way they put together their experiences. Each person has a sense of the *style of his individuality*. To have *personal identity* is to perceive this continuity in your existence and to perceive also that others recognize but don't share the meaning that you assign to that continuity. To have *ego identity* is to be aware that you have a particular style to your own individuality and that this style coincides with what you mean to the significant others in your life.

This distinction is confusing but it's important. For example, the American Indian youth may have a *personal identity*. He knows that he is an Indian and he knows his own heritage. He also knows that the culture in which he lives knows his identity and rejects it as worthless. How can he be anything other than thwarted? If he is true to the sense of cultural continuity which he derives from his parents and his heritage, then he is worthless in the eyes of his westernized, civil service schoolteacher or his white boss.

The same problem may be seen in the cry of the black youth of today. He has a *personal identity*. He knows what it means to him to be black and he knows what society thinks of him. What he is crying for is an *ego identity*. That is, he wants his style of individuality to be recognized as worthwhile by the society in which he lives. Thus, he cries out that he doesn't want to become white, that black is beautiful. To him it is not he who should change, but the world should accept the validity of his blackness and the worth of the values in the black world that have given him

the strength to survive. This adolescent cry for an ego identity and the resultant adolescent sense of frustration was perhaps best expressed in 1741 by the young William Pitt speaking to the English House of Commons. He declared that he was indeed guilty as charged of the "atrocious crime of being a young man". (Bartlett, 1968, p. 425). The thought is a provocative one. Do we in fact assume that our youth are guilty just because they're young? Frankly, I fear that we do far more often than we realize.

But let us step back from this elaboration on the concept of identity and look in a little more detail at what Erikson has to say. We all know that the human is characterized by a long period of development and that we designate as adolescence the period of transition from childhood to adulthood. Further, as our society has become more technological and complex, we've lengthened that transition period. Time was when there wasn't much distance between biological puberty and psychological adulthood. Even in the musical *Oklahoma*, which romanticizes a time not so long ago, we laugh at the gossip about one girl who was obviously going to be an old maid—after all, she was seventeen and not yet married or engaged. Now, of course, with jobs only for the technically trained, with college and this, that, and the other, we extend adolescence into the twenties. At any rate, during this period of adolescence, this period of becoming, this period of change, in which the biological nature of each of us is going through drastic upheavals, there are also a number of identity issues which come to the fore. Their resolution—or lack of it—of these identity issues or crises is exceedingly critical for maturation into adulthood.

Erikson focuses on four stages of identity development through adolescence. He suggests that the first stage in the identity crisis is marked by "an important need for trust in oneself and in others". He sees this desperate need as the one which leads adolescents to seek fervently for men and ideas to have faith in, and for an opportunity to prove themselves trustworthy in the service of these men and

ideals. This facet of identity development is indeed a mixed blessing from our point of view as adults. We reward it generously in the service of the roles we assign to the adolescent. If he believes in the team spirit and is a good athlete, that's fine. If he believes in his teachers and is a good and well behaved scholar, that's fine. If he respects his parents and is a selfless and conforming helper at home, that's fine. If he believes in his country and is a good soldier, that's fine. All of these are in the service of what we would like the adolescent to be. On the other hand, if his athletic skills are oriented towards outrunning the police, and he is oriented towards developing trust in what we choose to call an adolescent gang and in its leaders whose values are different from ours, then we're dubious. If he studies not what we subscribe to in the school books, but rather the skills of surviving on the underside of society as described so brilliantly by Malcolm X (1966) and Claude Brown (1965) and if his idealism is to those heroes, then we're even more dubious. Then we have a clash between him and society because society will not legitimize his personal identity and give him an ego identity. He must give up and be beaten or reject society and line up with its outcasts and enemies to find someone he can trust and who can trust him.

Now suppose he does learn to trust, what lies ahead in the development of an ego identity? Erikson suggests that after learning to trust oneself and others, the second stage of identity development is the stage of learning *to will freely or decide freely*. Not in an irresponsible sense, no, but to decide with free assent, free acceptance, on which of the available or unavoidable avenues of life's service one shall pursue. Essentially, then, *there's the right and the desire to seek your own style of life, your own path within the many available*. Of course, that's hard enough for the child or the adolescent who's part of the dominant society and its values—the group that has come to be called the WASPS—White Anglo-Saxon Protestants. It's difficult enough for



them because their parents want them to choose paths that are more prestigious than those of the parents. But then they also want them not to choose more prestigious paths. They want their children to reflect their own success by being better than their parents, but not to reflect the parent's *unsuccess* by acting superior to or more knowledgeable than the parents. That dilemma may be at least partially resolvable, but what of the dilemma of the youth who is black, Indian, poor white, or what have you? How can he achieve an ego identity in a world that doesn't seem to offer him any particularly meaningful choices at this point? This dilemma and problem have been summed up in Paul Goodman's book with an appropriate title. He calls it *Growing Up Absurd* (1960) and raises seriously the question of whether modern urban-technological society provides an opportunity for the ordinary youth to develop an identity.

The third stage Erikson suggests in developing an ego identity is the stage of unlimited *imagination* as to what one *might* become. Part of developing identity is the right to aspire. The right, in the words of the song from *The Man of La Mancha*, is to "Dream the Impossible Dream". This same issue may also be seen in the cry of the black youth today. He has a personal identity, yes; he knows that he is black, and he knows what society thinks of it. What he is crying out for is an ego identity, for acceptance as a meaningful human being. That *has* been an impossible dream for the black man for centuries. Dreaming impossible dreams may seem crazy and wild-eyed to you and you may begin to laugh, but look at the dilemma of youth today growing up with an unpopular war and an uncertain future. Someone drew some numbers last month and many youths lost their future. Someone may drop a hydrogen bomb tomorrow, and all of us will lose our futures. Today's youth find it difficult to dream even *possible* dreams.

My own experiences are most directly with college students whom I find struggling with many of the same questions I had in college. I doubted myself every day; who doesn't?

Yet, I knew the doubts were in me and I could run away from college if I wanted. Of course, there was a war then that seemed valid and just and out of college I went with many others. When the war was over, so were my impossible dreams. Many of my doubts were resolved and college and growing up made more sense. But the youth of today doesn't even have the choice of an honorable war. He can't even find ideals in which he can believe so that he might dream his impossible dreams in battle and come to terms with growing up. *In effect, he has no reasonably honorable course of dreaming.* He can't even dream of selflessness. If he drops out of school to go to the Peace Corps or VISTA or the poverty program or to work, he may be drafted. If stays in school, he has to look in the mirror and wonder if he's a draft dodger. If he goes off to the war, he has to wonder if he's fighting a fruitless war in lieu of someone more privileged. Where is the honor there? Where is the chance to "Dream the Impossible Dream" and find a reality behind it and grow up?

Finally, Erikson adds a fourth stage as he speaks of the desire "to make something work", and we're back with White's concept of competence. Yes, Erikson suggests that *competence* in that sense is part of the ego identity. He suggests that competence is the end product presumably of the school process, and so the choice of an occupation becomes a significant part of one's ego identity. He notes that it's for that reason that adolescents frequently prefer not to work at all for awhile, rather than to make a premature choice that they think is wrong.

From our point of view, we'd rather they made the premature choice. After all, if the adolescent applies his motivation to playful exploration in the search of developing competence or delays his choice while he thinks about it, we adults consider him idle, vagrant, foolish, or worse. Interestingly enough, in a time not so long ago, it was considered legitimate to "sow one's wild oats". Yes, to play at things in the search of finding one's competence has been legitimized from time to time.



In fact, legitimized in forms far less responsible than much of the youthful rebellion and "delinquency" we see today.

Before leaving Erikson, let's summarize what he has said. The search for an ego identity, for one's own individual style of existence and for acceptance of that as valid by some community or group, comes to a final developmental crisis in adolescence. That crisis includes the issue of trust in oneself and others; a sense of freedom to choose one's own style and way; a sense of the right to aspire to what one wishes; and a sense of the right to develop competence. These are major issues for anyone and their resolution is critical in shaping the nature of one's adult existence. Our understanding of them is essential to influencing the development of desirable rather than criminal identities.

To add to that understanding, let me turn to some "hard nosed" experimental type psychological research and introduce a third strand of thought—that pertaining to pro-social behavior. Pro-social behavior is thought of as including helping, sharing, comforting, etc. and is contrasted with aggressive, destructive behavior which is called anti-social. What are the factors involved in the development of pro-social behavior? One of these investigators, Staub (1969, in press), has studied the determinants of children's willingness to help others in distress using subjects who ranged from kindergarten through the seventh grade. He has found that children are more likely to be helpful when they have been assigned more responsibility to help; when they have been given permission to go into the situation where help is needed; when they have younger siblings and presumably have had more experience with and more training in helping; and among younger children, when they are in pairs. Interestingly enough, he found an increase in helping behavior through the second grade, but then a drop in it until the sixth grade, where it was at a slightly lower level than in kindergarten. Explorations of that drop suggested that fear of disapproval or of inappropriate behavior may have inhibited

older children's willingness to take action or to help. In short, his findings suggest that children develop and exhibit more pro-social behavior as they're given more responsibility or as it's socially supported. Unfortunately, by the fourth grade fear of inappropriate helping behavior has begun to inhibit the tendency to help, and by the sixth grade it is below kindergarten level. That in itself is distressing.

Can we generalize about the conditions that produce and inhibit pro-social and anti-social behavior? Staub reviewed other research and explored this issue in a more general form (in press). He suggests that one of the general principles of behavior we might invoke is an overall concept of fairness of justice. People may well judge and balance their relationships to the world. Thus, either helpfulness or aggression may be in part motivated by a need to reciprocate for the way one has been treated. If a youth or, for that matter, an adult has been too harmed or thwarted, he may cease to be able to perceive others as entitled to a friendly response, or to be able to behave in a pro-social way in some situation, towards some kinds of people, or toward society at large.

Research on intergroup conflict also supports this view. Sherif and his colleagues (1961) studied intergroup competition and cooperation in a youth camp. They selected 22 well adjusted boys for the camp and divided them into two groups situated at separate campsites so arranged that the boys could be kept separate, or put in a competitive or cooperative relationship to each other.

They found very quickly that each group formed strong bonds within itself. Then the experimenters set up competitive situations. The groups began to develop hostility, prejudice, and negative stereotypes about each other. This behavior increased systematically. The investigators then tried to reverse this trend. Their approach was a relatively simple one. They introduced pleasant joint activities, but with little success. Next they introduced the need to cooperate. For example, it was arranged for a truck to break down. The boys



had to cooperate in pulling the truck to get it started so that food could be obtained for both groups. By applying such overriding goals, cooperation was made important. The rivalry and the name calling began to drop away. The boys became friendly, began to see each other as individuals, and became co-operative and helpful to each other and as groups.

What's the point of the two sets of studies and of putting them together? If we take the one set of Sherif's conditions in which we put people in opposition to each other, then we see hostile stereotyped angry behavior develop. If we take Staub's thoughts about reciprocity, then we ask the question, how long must you be mistreated, how long must you live in a hostile world that denies you, fights you, rejects you, before you'll make the judgment that this is a world in which pro-social behavior doesn't work? How long before the world, or teachers, or police, or parents become the enemy and you become incapable of kind feelings, helpfulness towards them, or sympathy or cooperation with them? How long before your ego identity must be a negative one, must be oriented to the outcast, the outlaw, to anyone who is anti-establishment?

How long before your competence, your play, your exploration of possibilities turn in the direction of developing increasing skill at fighting, outwitting, and destroying? These would seem to be questions that are crucial to understanding adolescents, understanding delinquents, and understanding how to change conditions and delinquent youth so that we can increase the development of pro-social behavior. What can we do to increase the time spent by youth in exploring the competence possibilities within society instead of against it? How can we increase the effort spent in striving to develop an ego identity that permits helping behavior and maturation into responsible adult citizenship?

Don't get me wrong; I'm not saying that all kids are good guys and we're all bad guys. I haven't the slightest doubt but that a reasonably determined and vigorous adolescent can

be mean as hell. All I'm saying is that if it is only in being anti-establishment that adolescents have a valid ego identity, then to them the development of that identity requires that they seek their ideals and spend their play time, their work time, and their fantasy time at improving their skills at being mean and ornery. Those same skills, those same fantasies, those same capacities cannot be employed in the service of pro-social ego identity unless we, our schools, and our society more generally permit and support the channeling of their struggle into socially acceptable paths.

In a recent column in the *Washington Post*, William Raspberry (1969), a young Negro columnist who writes much of the struggles of the Negro community, discusses the problems of selling programs for federal support, and elaborates on the problems of the District of Columbia Neighborhood Youth Development Center. He notes, "It's easy when you send a black student to Harvard", but it's much more important, although harder to justify, when you merely increase the number of Negro youth who are reading the paper. He reports on an interview with Lacy Streeter, Director of the D.C. Neighborhood Development Youth Program which will have ended by now, as funds ran out January 3, 1970, unless something or someone has intervened. Streeter says, "You know, it's really very difficult to measure the kind of success I see. I mean things like young people sitting around talking about something other than clothes and cars, youngsters reading newspapers regularly for the first time in their lives.

"I count it significant, for instance, that most of the youngsters who have gone back to school have gone with the specific intention of returning to do something for the community from which they came. And you've got to remember when we say 'youth' we're not just talking about ordinary teenagers. We're talking about people with prison records, young parents—married or otherwise. We're talking about people that society has written off.

"But there simply isn't any way to evaluate

formally the kind of motivation that is taking place in NDYP. I feel certain that we're suffering as a result of the intangibility of some of our greatest progress."

Raspberry goes on to say, "The program may be suffering, too, from the kind of criteria we've come to use to judge youth programs. If a program will prevent riots or diminish crime, we will find it in a minute. If all it does is help a boy to find his manhood, we'll find more pressing things to do with the money."

Let me close where I began. As White notes, strong motivation makes for narrow learning. The broad learning that goes with general competence requires less extreme conditions. I will grant you that juvenile delinquents are mean, vicious, organized criminals at times and it may well be that some have to be written off; in some the capacity for pro-social behaviors and identities have been destroyed before we come into contact with them. All I'm trying to emphasize is that delinquents don't just happen. There will be fewer of them and fewer will become hardened criminals to the extent that we can *temper* our control and our demands on them, and increase the rewards and potentials we offer them for developing pro-social identities and pro-social competences.

Of course, it is also true that psychologists, psychiatrists, judges, social workers, and policemen have identity problems too. That fact must also be part of our concern. It must enter into our efforts and plans to cope with delinquency. While we're developing ways to encourage pro-social ego identities in youth, we must also develop the support needed for the caretakers and security agents of society to maintain a positive ego identity. After all, most of the people who enter the mental health and corrections fields want to be helpful, at least early in their careers. We must not countenance society at large or our own frustrations, destroying our capacity for helpful pro-social behavior. But that is a topic which is big enough and important enough for another workshop. You might call it, "How to Save

the Sanity of Society's Helpers While Youth Goes Marching On." When you have that workshop, let me know. I need it too.

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# The History of Neurology in the State of Virginia (1854-1973)

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**T**HE DEVELOPMENT OF NEUROLOGY in Virginia began in 1854 and 1855 at the Medical College of Virginia in Richmond. The French Physiologist Brown-Sequard was then Professor of Institutes of Medicine, the now Chair of Physiology. The history of Charles Edouard Brown-Sequard has been sketched by Beverley R. Tucker, M.D., and I have taken from his papers.

Brown-Sequard's experiments were done in the basement of the Egyptian Building. Many experiments were carried out on fowl and animals leading to the discovery on the adrenal glands, published in 1856. He later described the findings in hemisection of the cord that has become known as "Brown-Sequard Paralysis". Later he traced the origin of the sympathetic nervous fibers to the spinal cord.

Dr. William H. Taylor, a Professor of Chemistry, told Beverley R. Tucker that Brown-Sequard lectured in Room 400 of the Egyptian Building, but other professors had difficulty in lecturing due to the commotion of Brown-Sequard's animals. He also tells the story of saving Brown-Sequard's life. Brown-Sequard, studying the function of the skin varnished his whole body including the face. Dr. Taylor found him unconscious on the floor, and with alcohol washed the varnish from his body saving his life. In 1855, he wrote his great paper "Experimental and Clinical Research on the Physiology of the Spinal Cord". In 1856, in Paris, he published his original endocrinology paper "Experimental Research on the Physiology of the Suprenal Cortex".

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Hans Berger Day Lecture at the Medical College of Virginia, May 21, 1973.

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Dr. John S. Wellford, who had studied in France, returned before the War between the States, to become Professor of Diseases of Women at the Medical College of Virginia and made the first diagnosis of locomotor ataxia, probably the first diagnosis of this disease in the South.

At the University College of Medicine 1896 to 1910, Dr. J. Allison Hodges was Professor of Nervous Disease. In 1910 the University College of Medicine amalgamated with the Medical College of Virginia. From 1910 to 1912 under the Chair of Medicine a lecture course was taught by Dr. H. H. Levy on nervous disease.

In 1907, the first neurological outpatient clinic was started by Dr. Beverley R. Tucker. In 1912 he was appointed the first Professor of Nervous and Mental Diseases. Dr. Tucker was trained by Dr. Weir Mitchell in Philadelphia. In 1904 Dr. Mitchell wrote Dr. Tucker as "My dear kinsman" and to quote, "I believe if you are properly equipped in January of this year you can enter the Hospital for Nervous Disease as a resident; then I think the service is two years." The resident service was then two years and a third year assigned apprenticeship-type experience.

The Department of Neuropsychiatry conducted bedside lectures, bedside clinics in the hospital division and outpatient clinics. Didactic courses were given as separate lectures in neurology and psychiatry. The department by 1940 had a Professor, a Clinical Professor, and seven other teachers. In 1907, the first spinal puncture in the South was performed at the Memorial Hospital. The first intra-spinal treatments in this part of the country were given in the Department of Neuropsychiatry. Research was done in pellagra, in pituitary

gland disorders, encephalitis, in manganese poison, familial disseminated sclerosis, in hyperostosis frontal interna, disseminated sclerosis, criminology, and child psychiatry.

In World War I, Dr. Beverley R. Tucker was appointed to the State Medical Advisory Board and was special examiner on the Nervous and Mental Board to the army and stationed at Camp Lee. Dr. Tucker introduced a seven minute test to eliminate psychiatrically and neurologically unfit draftees. Dr. R. Finley Gayle in World War I, having trained at New York Neurological Institute, served with the Third Division in France with the rank of Captain. In 1940 Dr. Tucker was made Emeritus Professor and Dr. Gayle was appointed Professor, the Chair then became the Department of Psychiatry and Neurology.

At the University of Virginia, Charlottesville, about 1906, Neurology was taught by Dr. John Stage Davis of the Department of Medicine and the senior class was taken to Staunton to observe and examine chronic cases of neurology and forms of insanity. Dr. James C. Flippin of the University and Dr. Paul V. Anderson of Westbrook in Richmond gave lectures in nervous and mental disease until September, 1929, when Dr. David C. Wilson was appointed the first Professor of Neurology and Psychiatry at the University of Virginia.

Dr. Gayle established in the Medical College of Virginia one of the original and first physically located psychiatric hospital bed services in a general medical/surgical hospital or medical school. A fine neurologist, with increasing psychiatric developmental interests attracted him away from neurological interests. In 1950, he invited Dr. Weir M. Tucker to develop neurology as a specific field. A neurology clinic was started and formal lectures in neurology were developed in all four years of medical school with ancillary teaching schedules in the Dental School, Physical Therapy School, and Occupational Therapy School. In 1952, a Muscular Dystrophy Association was formed and a Muscular Dystrophy Clinic was started by fund-raising and later a Multiple Sclerosis Association was formed. Through a Junior League project out of neu-

rological interest, a speech clinic was developed and established in the Medical College. The neurological examinations in the Cerebral Palsy Child Development Collaborative Study by the National Institute of Health Study was conducted by the neurological service. The Veterans Administration Cooperative Study on the use of Isoniazid in the treatment of Multiple Sclerosis was done through the McGuire's Veterans Neurological Service, and this was the first cooperative double blind study by several hospitals.

Dr. R. Finley Gayle had become President of the American Psychiatric Association, and in November, 1957, he died. In this year virtually every major department in the Medical College of Virginia was in need of a chairman. Neurology was developed as a Division of Medicine in 1958, and Weir M. Tucker was appointed Chairman of the Division of Neurology. A budget was obtained, space was allotted, teaching was expanded, and a career residency Neurology training program was started. The in-patient service program with 25 neurology beds on the medical service was integrated with the 56 neurological beds at McGuire's Veterans Administration Hospital, creating excellent material for total patient care. The several out-patient services became a Clinic for Medical Neurology, a Clinic for Child Neurology, a Clinic for Epileptic Neurology, and a recently added Clinic for Neuro-ophthalmology.

In July of 1959, Dr. Cary G. Suter joined the neurological staff and by 1963 the divisional growth was such that Dr. Weir M. Tucker, on a part-time appointment, withdrew as Chairman to establish Dr. Cary G. Suter as the first full-time Chairman. In 1970, Neurology at the Medical College had appointed Dr. Ronald B. David, a pediatric neurologist, Dr. John W. Harbison, a neuro-ophthalmologist; two additional full-time clinical neurologists were added, and a neurochemistry laboratory was functioning in addition to a research laboratory.

In January, 1973, through recommendation by the Dean and Chairman of the Department of Medicine, neurology was given a full de-



partmental status. Through committee appointment Dr. Cary G. Suter was reappointed to be the first Chairman of the Department of Neurology to the Virginia Commonwealth University, an outgrowth of the Medical College of Virginia.

The University of Virginia Department of Neurology and Psychiatry was chaired by Dr. David C. Wilson. As his interests became more psychiatrically involved, he appointed Dr. Walter Klingman as Professor of Neurology in 1948, and neurology began to develop. Dr. Klingman moved to a position in Texas in 1957. Dr. Wilson retired in 1963, and Dr. T. R. Johns, a Markel fellow was then appointed Chairman with neurological departmental status in 1967. There was developed 36 in-patient beds, a career residency program, and out-patient services with medical-neurological clinics, epileptic clinics, and other research neurology clinics.

In both medical schools, specific ancillary services in neuro-ophthalmology, neuro-radiology and neurochemistry has developed since 1960 with supportive teaching and training for students and neurologists.

The Veterans Administration in Virginia, out of impetus of World War II, developed in 1940 neurological services. Dr. Benedict Nagler was Chief of the neuropsychiatric service at McGuire's Veterans Hospital and also was on the Medical College staff until he was appointed in charge of neurological affairs in the Veterans Administration's Washington Central office.

Dr. Warren Huber, as Chief of Neurology at McGuire's Veterans Hospital added to the development of neurology. The 56 Veterans neurological beds were divided into 30 acute cases and nearly 30 chronic neurological cases. The service was integrated into the Medical College neurological program. Dr. Warren

Huber later was appointed in charge of neurological affairs in the Veterans Administration Central Office in Washington which appointment he continues to administer.

Dr. Nagler became Director of the Lynchburg Training School in Lynchburg, which is an outgrowth of the Virginia Epileptic Colony. It is an institution of various Neurological Chronic Brain Disorders.

The private practice of neurology before 1960 including certified neurologists in the two medical schools was limited to approximately less than ten neurologists. In 1973, the first medical neurologist association was incorporated as the Virginia Neurological Society. There were registered 36 neurologists that became founding members representing the neurological practices in the four corners of the State of Virginia. There are approximately 56 neurologists including northern Virginia some of whom practice in the District of Columbia.

It must be appreciated that this remarkable growth in neurology has occurred in a state of moderate size with only approximately five million people and approximately 5,000 physicians which in comparison is less populated than the city of Philadelphia and with fewer physicians than there are in the County Medical Society of Philadelphia. In Philadelphia, there are five medical schools, and in Virginia, two small medical schools.

The star of neurology began bright in Virginia with Brown-Sequard and remains bright through the continued neurological growth, educational excellence, contributions in research and patient services contributed by the clinical and private practice of neurology in and about the medical schools in the State of Virginia.

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# Tietze's Syndrome

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**Tietze's syndrome is a not uncommon entity which must be considered in the differential diagnosis of painful swelling of the anterior chest wall.**

**"E**PONYMOUS NOMENCLATURE for diseases has its advantages; it is a convenient cover for ignorance of the disease, and it avoids the too ready acceptance of an etiological hypothesis for which there may be little or no evidence."<sup>13</sup> Tietze's syndrome, a not uncommon symptom complex which occasionally presents itself to physicians involved in all areas of patient care, is a good example of this situation. It is the purpose of this paper to present three typical patients with Tietze's syndrome and a brief review of its clinical features.

In 1921, Tietze<sup>19</sup> described four patients with "swelling of costal cartilages of unknown etiology, insidious in onset, spontaneously painful, not associated with constitutional disturbances, and of a prolonged fluctuating course." He characterized these painful, tender, non-suppurative swellings of the anterior chest wall as being neither inflammatory, granulomatous, or neoplastic, but referred to the lesions as a "dystrophy" of the costal cartilage. Although the first American case was described in 1953,<sup>14</sup> the world literature presently exceeds 400 cases. Tietze's syndrome is believed to be much more common than the number of case reports would indicate. Because of the benign, self-limiting nature of this condition, it is important that the physician be

aware of its occurrence and familiar with the syndrome's uniform clinical features in order to differentiate it from the more serious conditions that produce thoracic pain and chest wall masses.

## Clinical Manifestations

Pain is the outstanding clinical feature. It may be of gradual or abrupt onset and may vary in severity and character. It is usually localized to the site of the affected cartilage but may radiate laterally into the neck, shoulders, or arms. It is often aggravated by coughing or exertion. Duration of discomfort varies from a few days to several years, although gradual subsidence over a few weeks is most frequently seen. Exacerbations, however, are not uncommon, and attacks may occur after several years of quiescence.

The essential physical finding is a firm fusiform or bulbous swelling of one or more of the costochondral or sternoclavicular junctions. The palpable mass forms a one-half to three centimeter prominence over the involved site. The mass is generally noted after the onset of pain. Tenderness is usually present, but there are no signs of inflammation. The overlying skin is freely movable. The swelling rapidly reaches maximum size and may remain unchanged or regress slowly over subsequent years despite total subsidence of tenderness.

The syndrome occurs in all age groups, with a predilection for the third and fourth decades. There is no sex, occupational, or racial predisposition. Approximately 80% of patients have single lesions. Although bilateral involvement has been described, when multiple lesions occur, neighboring articulations on the same side are generally affected. The second costosternal junction is most frequently affected;



other junctions are involved far less often. Involvement of the sterno-clavicular joint has been noted by several authors.<sup>10,19,20</sup>

### Case Histories

*Case 1.* R.G., a healthy twenty one year old male, was admitted to the thoracic surgery service with the diagnosis of costal chondritis, left second rib. He complained of an intermittently painful, tender mass in the left anterior chest region which was of abrupt onset one year prior to admission. There was no history of trauma, nor was there antecedent cough, upper respiratory infection, or constitutional symptomatology. Although the initial pain and tenderness gradually subsided within six weeks of the onset of symptoms, the mass remained unchanged in size. He noted several exacerbations of pain and tenderness over the ensuing year. These episodes were treated conservatively with local heat, analgesics, and two local injections of steroids into the tender mass. Despite brief symptomatic relief after episode, pain and tenderness recurred.

Physical examination was normal except for a tender swelling involving the left costochondral area measuring two centimeters in width, four centimeters in length and two centimeters raised in height above the adjacent chest wall. There was no inflammation; overlying skin was freely moveable. Routine chest x-rays were normal. Laboratory data including complete blood count and differential, sedimentation rate, rheumatoid factor, serology, uric acid, tuberculin test, and blood chemistries were normal.

Because of the recurrent symptomatology, an excisional biopsy was performed. Grossly, the perichondrium was normal. There was diffuse enlargement of the involved costochondral junction with the suggestion of anterior angulation of the junction being responsible for the palpable prominence. Microscopically, the resected cartilage was normal. Specifically, there was no evidence of inflammation, neoplasm, or trauma. Postoperatively, the symptoms were relieved completely. There

has been no subsequent swelling, tenderness, or pain.

*Case 2.* N.E., a twenty five year old housewife, presented to orthopedic clinic with a one week history of a painful swelling of the right first costochondral junction. There was no history of trauma or upper respiratory tract infection. Symptoms began insidiously; the swelling reached maximal size in four days. There was neither constitutional symptomatology nor evidence of joint involvement elsewhere.

Examination revealed a healthy young woman. She was afebrile; general physical examination was normal. There was a moderately tender, fusiform swelling measuring two by four centimeters at the right first costochondral junction. There was no erythema or suggestion of inflammation. Laboratory data including complete blood count and differential, sedimentation rate, latex fixation, serum calcium and phosphorus, serum protein electrophoresis, and serology were normal. Chest x-rays were normal.

Treatment consisted of local heat, mild analgesics, rest, and reassurance. Symptoms disappeared within one month. When last seen eleven months later, she had had no recurrence of pain or tenderness, no change in size of the swelling, and normal x-ray examination.

*Case 3.* J.W., a fifty seven year old male office worker presented to orthopedic clinic with a six month history of a painful swelling of the right sternoclavicular joint. There was no history of trauma, respiratory disease, or constitutional illness. The painful, tender swelling had initially developed over a three day interval. There was no suggestion of inflammation. Although the symptoms were intermittent over the previous six months, the size of the mass remained unchanged. The patient had maturity-onset type diabetes mellitus, which was well controlled with diet alone.

Physical examination was normal except for a minimally tender, diffuse swelling involving the right sterno-clavicular joint. There was

no evidence of inflammation. There was full range of motion of the right upper extremity. Laboratory data including complete blood count and differential, urine analysis, sedimentation rate, latex fixation, fasting and two hour post-prandial blood sugars were normal. Routine x-rays were normal; tangential views revealed anterior soft-tissue swelling of the involved joint.

Heat, aspirin and reassurance resulted in disappearance of symptoms within two weeks. When last examined one year later, the patient remained asymptomatic, the swelling was nontender and unchanged in size; x-rays revealed persistent anterior deep soft tissue swelling over the right sternoclavicular joint without evidence of bony abnormality.

### **Etiology**

Despite the numerous etiologic factors which have been proposed, the cause of Tietze's syndrome remains unknown. Tietze's original suggestions concerning "dystrophy" of the cartilage due to nutritional deficiencies or tuberculosis has not been subsequently confirmed. The following associated conditions have been described in patients with the syndrome; premature calcification or ossification of the costal cartilages, congenitally bifid ribs, a distant focus of bacterial infection, hormonal imbalance, allergy, leg-length inequality resulting in chronic postural stress, rheumatoid arthritis, pregnancy, Hodgkin's disease, diabetes mellitus, hemochromatosis and cirrhosis. The overwhelming majority of patients with Tietze's syndrome, however, have no associated abnormality.

The etiologic association of transient upper respiratory tract infection and Tietze's syndrome has been noted by several authors.<sup>6,7</sup> Since the chondrosternal junctions are synovial joints, these areas could conceivably become symptomatic because of an inflammatory process. The mild repetitive trauma from coughing may be a causative factor in patients with the syndrome, as suggested by Motulsky and Rohn. However, there has been no evidence of synovitis or inflammation; nor has trauma

in other forms been consistently noted. Here again, the large majority of patients have no history of either coughing or upper respiratory tract infections.

Anatomic explanations have been proffered by others. Several authors feel that the interarticular chondrosternal ligament is responsible.<sup>2,14</sup> This structure is a strong fibrocartilaginous ligament that passes within the joint from the second costal cartilage to the cartilaginous (or bony) junction of the manubrium with the body of the sternum.<sup>8</sup> This ligament is found constantly only between the second costal cartilages and the sternum. It is an inconstant structure at the remaining sternocostal articulations. Interestingly, the presence of this ligament at the various other junctions parallels the incidence of involvement of these cartilages by Tietze's syndrome. Motulsky and Rohn postulate that small tears or rheumatoid involvement of this ligament could allow forward rotation of the respective costal cartilage. Beck and Berkheiser have described the ligament as a "heavy ligamentous fibrous-tissue band"<sup>2</sup> which, if contracted, could cause the cartilage to become "buckled forward" at an acute angle as was noted in their biopsy specimens. However, ligamentous pathology and cartilage "buckling" have not been consistently noted in surgical specimens. In addition, the sternoclavicular joint, which is occasionally involved, does not have an interarticular chondrosternal ligament.

### **Diagnosis**

The sine qua non of Tietze's syndrome is the presence of a distinct swelling, which is initially tender and painful, at one or more of the costosternal or clavicolosternal junctions. Confirmation is largely a matter of exclusion of other local or systemic diseases. The characteristic clinical picture should suggest the diagnosis of Tietze's syndrome. All laboratory studies, including complete blood count, serum chemistries, rheumatoid factor, uric acid, and sedimentation rate are normal. In the large majority of cases, routine chest x-rays are normal. Tangential films may re-



veal a soft tissue density mass projecting from the anterior chest wall over the involved costosternal junction. Lindblom<sup>10</sup> has emphasized the finding of subcostal soft tissue swelling, best demonstrated by tangential x-rays. In the initial report by Tietze, enlargement, thickening, and increased calcification of the affected ribs was noted in two of his four cases. Skorneck<sup>18</sup> has recently emphasized the changes as hypertrophy of the costal cartilage on tangential view; excess calcification of the cartilage; periosteal reaction with increased width and initial porosity followed by increased density of the affected rib. Despite scattered instances of these x-ray changes, it is most unusual to find roentgenographic abnormalities other than soft tissue swelling in Tietze's syndrome. The chief value of x-ray evaluation, therefore, is to exclude other diseases.

Gross findings at operation have been variable. In those few cases which have been approached surgically, swelling or edema of the soft tissues and perichondrium has been infrequently described. The consistent finding of an abnormal prominence of the involved cartilage may represent an actual increase in the cartilage mass; it has often been described as the "forward buckling" as suggested by Back and Berkheiser. No specific observation of the status of the inter-articular sternocostal ligament has been made. Histologic examination has failed to reveal any specific diagnostic feature. The cartilage is normal, without evidence of tumor or inflammation.

There is a tendency to include under the eponym of the Tietze's syndrome various other musculoskeletal disorders which may result in anterior chest wall pain of point tenderness over ribs, muscle, or cartilage.<sup>3</sup> Although muscle fatigue and strain are most often responsible, these local areas of tenderness offer the same problems in differential diagnosis as does Tietze's syndrome. It is well known that many forms of visceral disease may produce somatic reference areas of pain. Thus, coronary artery disease, myocardial ischemia, or pulmonary disease may have associated localized pain and

tenderness in the anterior chest wall.<sup>17</sup> Nor is the chondrosternal area immune to the degenerative, collagen, pyogenic or arthritic processes which affect joints elsewhere.<sup>16</sup> Lesions of costal cartilage have been described in tuberculosis, syphilis, typhoid, mycotic, and brucellar infections.<sup>12</sup> Ankylosing spondylitis, gout, and Hodgkins disease may all have associated painful swelling and tenderness in the sternal area. Benign and malignant neoplasms such as chondroma, osteochondroma, multiple myeloma, metastatic lesions, and osteogenic sarcoma, to name a few, must be excluded.

### Treatment

Treatment is largely symptomatic, i.e. local heat, analgesics, salicylates or anti-inflammatory agents where indicated, and reassurance to the patient of the benign nature of the disease. Local infiltration of hydrocortisone or similar steroid compounds has often been beneficial in resistant cases.<sup>1,4</sup> Roentgen therapy to the involved site has been ineffective. Complete surgical excision of the lesion has permanently relieved the symptomatology.<sup>15</sup> In addition, it provides histologic confirmation of the diagnosis. However, few authors advocate a routine surgical approach to this benign, self-limited entity. Surgical resection should be reserved for refractory cases or those in which the diagnosis is uncertain.

### Summary

Three cases of Tietze's syndrome are presented. The syndrome is a nonspecific, painful swelling of one or more of the anterior chest articulations. The diagnosis is established by the presence of the painful, tender swelling, and the exclusion of any other disease by history, physical examination, and appropriate laboratory studies. The cause of this condition is unknown; it is self-limited disease which may occasionally have a prolonged and fluctuating course. The benign nature of the disease is stressed. Since this syndrome is believed to be not uncommon, it should be considered along with the more serious disorders in the differential diagnosis of anterior chest pain and swelling.

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## New AMA Program to Improve Early Health Care for Children

The American Medical Association is sponsoring a series of meetings at the national, state and local levels to enhance early screening, diagnosis and treatment of children under the Medicaid program.

The AMA, through its Committee on Health Care of the Poor, will be responsible for launching this program in an effort to improve health care for children in low-income areas.

The AMA, along with other health disci-

plines, will identify and recommend solutions to be developed. The recommendations will then be tested in a pilot demonstration program at a local site to be designated. Information developed through the AMA program will be published in a report that will be available to others involved in the problem.

The program will be carried out with a \$25,000 grant from the U.S. Department of Health, Education and Welfare.



# Preoccupation with Eating, Dieting, And Weight Control

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**This paper examines the symbolic meaning of food and eating, and the relatedness between the biological process of eating and primitive psychological processes relating to others.**

**A** PATIENT'S PREOCCUPATION with eating, dieting, and weight control may be symptomatic of psychopathology. An appreciation of this will help the family physician in his diagnosis and management and alert him to those situations in which psychiatric consultation may be indicated. The eating problems of psychiatric patients, of which anorexia nervosa is an extreme example, contribute much useful information; and the psychology that underlies our contemporary society's emphasis on dieting and body weight should be taken into account.

Medical issues are paramount with many patients, for example those who have reached middle age and fear heart trouble connected with obesity; most of these are reasonable persons who benefit from the sound medical advice the doctor provides. Others are considerably more concerned with appearance than with health. These come to the physician's office because of social norms and the Madison

Avenue influence of fashions, weight-watchers' clubs, etc. A certain number of patients deeply involved with body size and diet may, however, be close to the borderline of pathology, or even over it.

## Eating and Psychological Relatedness

I will make no attempt here to review the organic aspects of obesity or weight loss. My sole purpose is to indicate the importance of the psychological aspects of eating, which is, as Thass-Thienemann,<sup>1</sup> a student of symbolic behavior, puts it:

... such a sensitive indicator of unconscious fantasies because the earliest mother-child relationship is based on feeding, thus the food as well as the process itself may absorb emotions like love and hatred, appetite and disgust, acceptance and rejection, attraction and avoidance, satiety and deprivation, reward and punishment.

In 1905 Freud<sup>2</sup> referred to the experience of sucking as an essential gratification (oral eroticism) tied to the oral zone, and linked with nutrition. He further suggested that we have a tendency to repeat such gratification, and that adults in whom oral eroticism was strong in infancy tend to "have a powerful motive for drinking and smoking". The expression "I love you so much I could eat you up", when uttered by an adult, is a symbolic reflection of infantile gratification.

Those of us who work with schizophrenic patients in intensive psychotherapy often see how, at times, lacking a more sophisticated symbol, they equate the process of taking food into the mouth and spitting it out with the process of taking in psychological experiences (by introjection) and spitting them out (by

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projection). The infant's experience of relating to another is associated with bodily functions such as eating and spitting out.

By incorporating objects one becomes united with them . . . The ideas of eating an object or of being eaten by an object remain the ways in which any reunion with objects is thought of unconsciously . . . Handshaking means that union is sealed by letting one's body substance flow into the other person's. And a companion is still a "com-panion," a person whose bread is identical with ours.<sup>3</sup>

Although one must refrain from over-simplifying highly complicated psychological processes by comparing them with bodily functions, clinical observations<sup>4,5,6,7,8,9,10</sup> indicate that physical models of ingestion via mouth, skin, respiratory tract, eyes, or other body inlets do primitively symbolize taking in (internalizing) psychological experiences with other objects. For example, Hendrick<sup>7</sup> has shown that when our patients try to identify themselves with their therapists the process is usually accompanied by a number of oral fantasies, and that these are often cannibalistic. I<sup>9</sup> have had the experience of having a schizophrenic patient take me in symbolized as a turkey dinner, in reference to my Turkish nationality. Another such patient, thinking that my name indicated German nationality, sought to "drink me in" by fantasizing drinking German wine during his third hour in therapy. In a more graphic illustration, Schimideberg's<sup>5</sup> schizophrenic patient said to her

At bottom, everything, reading, going to the theatre, paying a call, is like eating. First you expect a lot, then you are disappointed. When I come to analysis, I eat your furniture, clothes, words. You eat my words, clothes, money.

I have given these examples from work with schizophrenics who have reactivated the earliest form of human relatedness, to show at the outset the strong connection between the biological and the psychological process of eating. It is no wonder, then, that the psychological

aspects of eating appear significantly in so many psychiatric illnesses, accompany non-psychogenic disease processes so often, and are symbolically employed in a general sense in human communication. Especially in the case of infants and young children, eating behavior may serve as "an especially sensitive indicator of general adjustment".<sup>11</sup>

Much has been written about the relative advantages of breast-feeding and bottle-feeding,<sup>12,13</sup> and the importance of the posture of the feeding mother,<sup>14</sup> her emotional attitude and that of other family members toward it, and nursing behavior<sup>11,12,15,16,17,18,19,20,21,22</sup> and the regularity of the feeding time.<sup>23</sup> And weaning is considered life's first major experience of frustration,<sup>24</sup> one with which the infant may equate the impending loss of the mother.<sup>25</sup> Any disturbance in these processes may initiate in the infant feeding difficulties that can persist into later years or become the foundation of late (adult) eating disturbances. For example, parents may force food on a child, with the result that he will become obese. If the child sees the food as "representative of all tyrannies",<sup>26</sup> he will refuse it and become undernourished. It is generally agreed that the pleasurable process of eating can become unpleasurable because of the parent's attitude.

It is difficult to elicit a history of early eating problems and attitudes from the adult patient with eating idiosyncracies, even when the mother is available for interviewing. Feeding, eating, loving, and relating are so much intertwined in the early child-mother relationship that unpleasant aspects are repressed. It is only in intensive psychotherapy that the patient may "remember" (in the transference neurosis) by displaying toward the therapist the expectations and attitudes that reveal what interaction once took place between the patient and his mother. Since to "take in" an object destroys it, the psychological process of eating (introjection) has a strong component of ambivalence. We love the object enough to eat it, but we can at the same time destroy it in our unconscious fantasy. The obviously aggressive aspects of our "oral-sadism" account for our interest in stories of vampires,<sup>3</sup> and some eating



difficulties may arise from a need to defend oneself from one's oral sadism.

## Symbolism of Food and Eating

Before I give further clinical examples a few words on the symbolism of food and eating may be useful. Without attempting a complete review of the topic I will indicate briefly how food and eating have been symbolized in religion, folklore, and mythology, and how such symbolism appears in psychiatric practice.

I have already referred to the cannibalistic fantasies of two schizophrenic patients relating to the therapist. Boehm<sup>27</sup> a psychoanalyst, and Frazer,<sup>28</sup> an anthropologist, note the belief persistent in many tribal cultures that the characteristics of a dead human being or animal are made available by eating a portion of the dead body—usually a part uniquely symbolic of the wanted quality. In Norse legend, Ingiald became bold after eating the heart of a wolf. Frazer tells of the priests of the Yorubas of the Slave Coasts, who removed the hearts of their human victims, dried them, crumbled them to powder, and sold the powder, mixed with rum, to those who wanted courage. A like practice was followed by Orinoco Indians who roasted the hearts of their slain enemies. The Nauras Indians of New Granada ate the hearts of Spanish conquerors to identify with their force and power. Nor was the heart the only such delicacy. The Efugaos, Filipino tribesmen, sucked the brains of their dead foes, and the Tolaliki, the notorious headhunters of the Central Celebes, ate the brains and drank the blood of their enemies. Warriors of the Theddora and Ngarigo tribes in South-Eastern Australia ate the hands and feet of those they had slain.

These primitive people believed they were "absorbing" the psychological qualities they coveted when they ate these gruesome morsels. It seems likely that there was an equal urgency to abstain from eating those plants and animals that represented unwanted psychological qualities. Consider the following example, representative of many others:

(The Zaparo Indians of Ecuador) will, unless from necessity, in most cases not eat any heavy meats, such as tapir and peccary, but confine themselves to birds, monkeys, deer, fish, etc., principally because they argue that the heavier meats made them unwieldy, like the animals who supply the flesh, impeding their agility, and unfitting them for the chase.<sup>28</sup>

Frazer says that the custom of eating and drinking in strict seclusion, occasionally reported, "may perhaps be to hinder evil influences from entering the body." The vegetarian of today, whatever his conscious rationalization may be, has a food aversion with psychological symbolism. For example, Goldman<sup>29</sup> described one patient's abstention from meat as a defense against oral aggression and cannibalism; Bergler<sup>30</sup> referred to such abstention as a defense against the repressed infantile urge to bite the mother's breast.

Remnants of the beliefs and customs of our primitive ancestors may somehow remain active in our contemporary culture. For example, consider the animal cracker!

Language gives further insight into the preservation of ancient human memories, however repressed they may have become.<sup>1</sup> Examples of how biological eating has been connected with psychological responses appear in the Latin *gustō-gustāre*, which also means "to become acquainted with"; and *sapiō-sapere* (also *to taste*), which becomes "to have insight about" or "to understand".

Alimentation begins with the mastication of food. The preliminary readying of food by boiling or stewing it outside the body anticipates what will take place within it. The Latin *macerō-macerāre* means "to soften, assuage"; the term *maceries* significantly denotes another internal process when it refers to worry and anxiety. The Latin verb for chewing, *mordeō-mordere*, is carried over into "remorse"; and the Hebrew *ta'am* means "to taste" as well as "to perceive".

An unconscious symbolical significance concerning any particular food may account for some kind of common finickiness and for the

less frequently seen food cravings and aversions, more usual among children than among adults.<sup>31</sup> Some children think of spaghetti or macaroni as worms—and this association appears in the Italian word “vermicelli”, the diminutive of the word for “worm”.<sup>1</sup> In Ottoman Turkish poetry,<sup>32</sup> as in that of other countries, the apple stands for the cheek, the cherry for the lips, and so on. In Turkish cookbooks,<sup>33,34</sup> items of food, particularly desserts, have anatomical names (possibly somewhat less prim than the English *lady fingers*!).

In 1947 Lehman<sup>31</sup> reviewed the psychiatric literature on food symbolism. He wrote:

To the uninformed, food symbolisms may seem to have incredible and grotesque characteristics somewhat like dream symbolism, but like the latter they are a very valuable approach to an understanding of the unconscious.

His review turned up references connecting specific food items with body parts they suggest and/or symbolize in the observations of Fenichel,<sup>35</sup> Moulton,<sup>36</sup> Kaufman<sup>37</sup> and Selling.<sup>38</sup> Those who recall the rude designation of certain unpopular dishes served in boarding school will recognize this as a spontaneous phenomenon!

### Specific Disorders

Eating and weight problems may accompany a number of disorders, of which schizophrenia has been offered as an example. Since they appear in connection with four other rather specific conditions, which may at times overlap, a look at them will contribute to our insight.

a. *Food addiction*: This is seen in the patient whose compulsive overeating leads to extreme obesity. Addiction to food is like addiction to alcohol, and extreme obesity can have a serious effect on marital, occupational, and personal affairs. Moreover, withdrawal symptoms that accompany the imposition of dietary restrictions on an obese person parallel those of an alcoholic trying to dry out.<sup>39</sup> In food addicts . . .

No displacement has transformed the original object (food) of the strivings for simul-

taneous gratifications of sexuality and self-esteem. However, later stages of development have added other unconscious meanings to the pathologically craved food; it may represent feces, child (embryo) and penis. In severe cases, the field of eating remains the only interest connecting the person with reality.<sup>3</sup>

The compulsive eater often eats alone and in secret. He does not acknowledge his secret eating, but claims that his weight increase is a mysterious development unrelated to food intake. The loneliness of the food addict is suggested<sup>39</sup> by the symbolic attempt to swallow everything in order to dispel his oppressive feeling of emptiness.

Not all food addictions are severe. Persons only moderately addicted can usually hide their need of food and their search to satisfy it. The obsessive interest may indeed be limited to something like coffee or coca cola, for instance.

b. *Anorexia nervosa*: In examining pathological thinness I will limit myself to that caused by psychological disturbance rather than by hormone imbalance or other organic abnormality. The most alarming and drastic manifestation of such emaciation is anorexia nervosa, which can be fatal. Bruch<sup>17</sup> states that . . .

. . . The condition of self-inflicted starvation, without recognizable organic disease in the midst of ample food, is usually diagnosed as anorexia nervosa.

She further shows that the true syndrome is amazingly uniform, and recognizes three areas of disordered psychological functioning:

1. The first is a delusional disturbance in respect to body image and body concept. For example, the patient is untroubled over a dramatic weight loss even to the point of defending as normal and appropriate the present skeleton-like appearance.
2. The second is “a disturbance in the accuracy of perception or cognitive interpretation of stimuli arising within the body”, most particularly failure to interpret enteroceptive signals indicative of nutritional need.



In a later paper Bruch<sup>18</sup> suggested that anorexic patients, like those who are obese, have never acquired the normal ability to tell whether they are hungry or sated, or a knowledge of how hunger or satiety feels. Since biological needs are first felt by the infant as an undifferentiated state of tension, it is only through the experience of interaction with the mother that specific patterns begin to take shape in ways that permit the nature of the need to be recognized. When the mother offers food in response to the infant's hunger signals she fosters the development of the engram of "hunger". Bruch feels that if the mother's child-feeding behavior is consistently inappropriate he will not learn to discriminate between hunger and other forms of distress; inappropriate maternal behavior might consist of ignoring hunger signals, or mechanically shoving food into the child. The decision to eat or to refrain from eating can thus come to represent solutions for other problems than hunger or satiety. Another characteristic manifestation of a false interpretation of the bodily state in anorexia nervosa is overactivity, a denial of fatigue. Bruch<sup>17</sup> suggests further that the absence of sexual feelings and a marked deficiency in the ability to identify emotional states may indicate a related perceptual and conceptual deficiency.

3. The third significant characteristic of anorexia nervosa is a paralyzing sense of ineffectiveness. The anorexia nervosa patient experiences no drive toward initiative and undertakes activity only at the instance of others. This characteristic may be concealed beneath enormous negativism and what appears to be stubborn defiance.

Freud<sup>40</sup> identified as a sexual theory common among children the belief that "one has a baby by eating," and such fantasies of oral impregnation are typical among anorexia nervosa patients. By thus symbolizing sexual activity they can express desire by eating or defend themselves against it by refusing to eat. When the female anorexia patient stops having her menses she can by this symbolism have her womanly nature denied—or, contrariwise, have it fulfilled in fantasy by pregnancy. One of my pa-

tients<sup>41</sup> was compelled to keep her weight at exactly 99 pounds, and had amenorrhea after the first substantial weight loss on the road to the weight she unconsciously sought for herself. Her symptoms represented on the surface her identification with a grandfather, highly important in her life, who shrank to 99 pounds before he died. Further treatment, however, disclosed her fantasies of oral impregnation, and more extended investigation brought to light a very difficult early introjective-projective relatedness with the mother. Similar disturbances, stemming from pre-oedipal constellations, have been reported by others also.<sup>42,43</sup> In the case of a patient of Meyer and Weinroth<sup>42</sup> it was possible to observe Lewin's<sup>44</sup> triad of oral eroticism; the wish to eat, the wish to be eaten, and the wish to sleep (or die).

c. *Hysteria*: There are many hysterical eating difficulties; some may be accompanied by a feeling of constriction in the throat, by vomiting, or by globus hystericus. The latter symptom is reported as a lump in the throat. Psychoanalytic study of such patients shows how they use the mouth or throat as symbolized sexual organs,<sup>2,45</sup> and are defending themselves against recognizing a desire for oral sex.

A 15-year-old boy was admitted to the University of Virginia Hospital for what he termed "choking spells". He had had these spells from time to time over a period of nine years and had seen a number of non-psychiatric physicians for their relief. When seized with such a spell he fell suddenly on all fours and rocked back and forth while his throat closed with the sensation that it had a lump in it. To save time and to accommodate to his deficiencies in verbal communication, we hypnotized him, eliciting clinical evidence of the cause of his hysterical symptoms. Between the ages of three and five he had had to sleep with a brother who was by then in his teens. The brother frequently gave himself over to autoeroticism, which the patient had recalled compellingly as he himself reached puberty. His globus hystericus had elements of the wish to take in his brother's male "power" and at the same time to defend against it; the rocking motions reflected the sexual thrusting he had seen

in his brother's performance and in the mounting of farm animals.

d. *Depression*: Some patients who consult the family physician about changes in eating habits may be suffering from depression, which is easily overlooked if it is mild. Eating difficulties may indeed provide a useful clue to the presence of depression underlying other complaints. Lesse<sup>46</sup> has outlined a broad spectrum of clinical patterns behind which a depressive illness may be concealed; these include drug dependence and alcoholism, seen as oral preoccupations. Moreover, actual eating difficulties are usual symptoms of a well-developed depressive neurosis or the related emotional state of pathological grief.<sup>47,48</sup>

The relation between depression and oral erotism was first pointed out by Abraham<sup>49</sup> and Freud.<sup>50</sup> Depression stems from a loss of some kind, either real or symbolic. The patient who is fixated at the oral stage and dependent on the lost object introjects it—which is to say that psychically he “eats” it. His love toward it keeps it within in an identification that his hate toward it tries to destroy. This process can, of course, result in suicide if it is carried out to completion. Psychoanalytic writers sometimes explain anorexia as a defense against such “psychological eating,” involved in depression. Contrariwise, a patient who has lost his supplies may “devour” the world to overcome his painful emptiness, and the symbolic behavior involved here is overeating, at times overeating to the point of extreme obesity.

### **A Brief Case Report**

The patient was a 23-year-old middle-class white woman, a college graduate, who was endangering her marriage of six months' duration by secret eating practices that recall the gluttonous habits of the ancient world, and that threatened severe financial hardship. Her conflicts involved orality, sexuality, and dependence-independence. Eating problems went back to her infancy, when she had colic, and when she was seven and stole raw food from the home kitchen, consuming some and burying the rest. In adolescence she became devoted to fashion magazines and the prototype of the

willowy fashion model; she devised a ritual whereby she could keep on indulging her compulsion to eat four times what she needed and at the same time keep her weight down. She found that she could readily vomit if she stuck her finger in her throat, and she learned, moreover, that this practice, carried out in secret according to plan, gave her a kind of sensual satisfaction that she coveted. Her jaws were prominent and a habit of gritting her teeth had led to hypertrophy of the masseter muscles. She fantasized being pregnant when she was gorged with food, and control of conception played a part in the induced vomiting. Her mother had often mentioned the excessive bleeding she had suffered at the time of her daughter's birth. Her own menarche appeared at age 12; oddly enough, it came coincidentally with a minor accident in which both mother and daughter were involved, and symbolically emphasized the hazards of becoming a woman.

At the time of her admission to the hospital she was thin and had amenorrhea. Her marriage to a schoolteacher she had gone with for a year and a half had initially gone well, but she shortly resumed her childish habit of stealing small items, overeating so excessively that the couple's grocery bills were as high as \$75 a week, and vomiting in secret. Just before marrying she had engaged in oral sex with her husband-to-be; although it aroused considerable anxiety in her, she found it highly exciting. She had recently begun denying her husband sex, while she continued to find gratification herself in her bizarre habit of eating and vomiting.

### **Summary**

This paper examines the symbolic meaning of food and eating, and the relatedness between the biological process of eating and primitive psychological processes of relating to others. Five specific psychological disorders are briefly outlined to demonstrate clinical application of the psychological aspects of eating, dieting, and weight control. A brief case history exemplifying characteristics of eating disturbance is provided.



Since the family physician may encounter in his practice many patients preoccupied with diet or weight control, a knowledge of the psychological background possibly underlying such preoccupation may provide a useful guide in dealing with them, and help him in the diagnosis of conditions in which psychiatric con-

sultation might prove to be beneficial.

*Note:* A full list of references may be obtained from the author.

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### **Clinical Center Study of Patients with Breast Cancer**

The cooperation of physicians is requested in the referral of patients with breast cancer for studies being conducted by the National Cancer Institute's Medical Breast Unit in cooperation with the Surgical Breast Program at the Clinical Center, National Institutes of Health, Bethesda, Maryland. Since we desire to study these patients from the time of strong suspicion and histologic proof to the termination of their breast cancer we wish to do so in close cooperation with the referring physicians. Accordingly, the referring physicians would be informed about each patient visit to the Clinical Center, and there would be no major therapeutic changes in any patient's management without the consultation and concurrence of both the referring physician and the patient.

We are interested in following patients with primary breast carcinoma, and outpatients referred for a suspicious breast lesion. These latter patients would be studied diagnostically to ascertain if our present techniques can be improved upon. Of especial interest are those patients who have positive axillary nodes found at surgery. This group of patients has an approximate 45 percent five year survival rate, and they may be eligible for adjuvant chemother-

apy study programs. The drug regimens employed have been found to be well tolerated by our patient groups and are designed to test the concept of whether or not long term adjuvant chemotherapy in this disease will be as beneficial as it has been shown to be in other diseases.

We are also interested in the referral of patients with measurable disease at the time of their first recurrence. Such patients will be considered for studies utilizing standard hormonal manipulations with or without the addition of chemotherapy. Patients referred with metastatic disease subsequent to hormonal therapy will be considered for chemotherapy studies if they have measurable disease.

Physicians interested in further details and in having their patients considered for admission may write or telephone: Douglass C. Torney, M.D., Head, Medical Breast Unit, National Cancer Institute, Building 10, Room 6B17, Bethesda, Maryland 20014. (301) 496-1547 or Glenn Geelhoed, M.D., Administrative Head, Surgical Breast Service, National Cancer Institute, Building 10, Room 10N119, Bethesda, Maryland 20014, (301) 496-2031.

# Obesity — A Voluntary Disorder

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**It is postulated that the obese individual does not feel hunger in the way that the non-obese does, that his eating is in response to "external" cues rather than to hunger. Treatment based on the etiology of this disorder might improve the usual poor results obtained.**

**O**BESE PATIENTS are among the most difficult, exasperating, and seemingly self-destructive of all patients. No matter how much time and sincere effort the practitioner gives them, their standard response is to gain weight, lose a few token pounds, or lose rapidly only to regain rapidly what they have lost. It does not seem to matter how the overweight individual is told about the numerous serious pathological conditions associated with obesity; even when it is made specifically clear that their excess poundage drastically reduces their life expectancy, the obese listen intently, promise significant changes in their eating habits, leave the office—and pick up their lives as though the time spent in conference with the practitioner meant nothing at all. The tragedy would be less if obesity were rarely seen, but it has been called "the most common nutritional disorder" (Lloyd, 1964) (Wolff, 1964). Conrad claimed in 1954 that one-fifth of the over-30 population of the United States was

overweight, and Mullins (1958), recording age, sex, height, and weight of 373 patients in a British clinic for general medicine found 100 of them at least 30% overweight.

It is not surprising that few practitioners have succeeded in reducing their obese patients inasmuch as no medical subspecialty has yet been able to account for the etiology of this disorder. This paper examines what has been done in psychiatry to develop a working theory of obesity; it will conclude with a discussion of the directions being taken in this research.

The most prolific psychiatric writer on this subject is Hilda Bruch, who feels that the way in which the infant is treated by his mother contributes to the place feeding takes in his subsequent life. When an infant who will cry out from hunger, wetness, pain, or loneliness is always responded to by feeding, he fails to learn how to discriminate among his many needs. Stunkard and Koch (1964) found that obese men had difficulty in knowing exactly when they were hungry, and that they reported being hungry when this state was unsubstantiated by physiologic measures of gastric motility. Their study supports the possibility that obese persons either lack any effective awareness of internal cues or are without the ability to discriminate among them.

Other theories have been offered. Karl Abraham (1927), a psychoanalyst, suggested that obese patients were those for whom the most pleasurable period of life had been infancy, in which eating was the supreme activity in a limited repertoire of behavioral possibilities. He believed that the obese were those who had found nothing in life to compare with the satisfactions experienced as feeding infants and did little to expose themselves

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EDITOR'S NOTE: Mr. Barker was a third-year medical student at the University of Virginia when this manuscript was submitted. Dr. Saffer is assistant professor of psychiatry-psychology.



to other delights. Many writers, Abraham among them, have noted that the obese patient tends to be primitive, and certainly the persistence of an oral orientation as well as the sacrifice of so many other activities for the basic satisfaction of consuming food is consistent with this expectation.

Bychowski (1950) felt that obesity results from a ferocious approach to food that suggests cannibalism. The already obese individual who continues to overeat symbolically represents the wish to rip, tear, and devour another human being in a grossly morbid introjective style. It is interesting to note how customarily the ponderous body weight of the obese seems to symbolize power (Mathis, 1965), as though it were evidence of successful plunder and domination. Such theories of symbolic power and aggression may be inordinantly inferential, yet it is often the case that the overweight patient has difficulty in expressing anger; the image of the jolly fat man is a common stereotype. Although the grossly overweight individual's appearance may seem to account for any absence of sexual activity, Coriat (1921) and Hamburger (1951) consider obesity a byproduct of sexual inhibition, and it is not unusual for the fat individual to be inept in mature sexual expression. Hamburger claims that the obese armor shields the individual from sexual involvement and helps keep his sexual instincts, about which he feels strongly conflicted, from reaching consciousness. It may be more profitable to see obesity as a mental health problem rather than one of nutrition, since this view provides an insight into the surprising indifference of many patients about correcting what is actually a serious threat to their well-being. And it may account for the insistence of so many that their habits of overeating and their consequent tremendous gain in weight are due to factors beyond their control (Aldersberg and Mayer, 1955).

Other theories offered by a psychiatric approach to the personality dynamics of the overweight include explanations of overeating from gross self-depreciation (Blazer, 1951)

(Wright et al. 1958); from the need to reduce tension (Conrad, 1962); in an effort to resolve strong feelings of depression (Benedek, 1936) (Blazer, 1951); and, more simply, as the continuation of childhood eating patterns that have been reinforced and continued into adult life (Becker, 1960). All have in common with those previously mentioned the supposition that by becoming obese the individual is giving expression to conflict. Thus it becomes necessary to appraise the flexibility of the fat patient in self-expression and to hope that he may be helped to express himself more fully in ways that will lead to more constructive outcomes than putting on additional weight. One is likely to find behavioral resources extremely limited in ways that are consistent with a basically self-defeating focus.

A habitual physical inactivity often accompanies excessive food intake. Gastineau and Rynearson (1947) have suggested that the parents of obese children either discourage or specifically forbid rough, competitive activity from an early age, and that the obese individual is likely to be one who has always been more or less torpid. Studies conducted at summer camps for obese children have consistently demonstrated the relative inactivity of those in attendance as compared with the child population at large. Bullen et al. (1964) made an objective demonstration of this finding by analyzing motion pictures made of obese girls participating in sports. Chirico and Stunkard (1960) found that obese girls customarily walked only about two miles daily, in contrast to nonobese girls, who covered five miles a day. Stuart (1955) showed that fat girls can and do lose weight when their motivation to be active is stimulated. One weight camp required its girls to participate in two or more strenuous activities each day while eating no more than 1200 calories; this regimen achieved an average weight loss of 22 pounds. The investigators (Peckos et al., 1960) emphasized that although the strict diet and exercise were undoubtedly beneficial in effecting this success, the environmental control and nutritional reeducation provided by the camp



in ways unavailable in most clinical programs could not be overlooked as determinants.

Such studies suggest that the relative inactivity of the obese patient contributes to the problem of excessive weight by lowering the catabolic rate and energy expenditure. Mayer et al. (1954) have shown the heightened importance of calorie surplus whenever activity falls below a level of reasonable calorie requirement. They designated this lowered activity level as "the sedentary zone" and suggested that urbanization and its attendant reduction of bodily activity accounts for much obesity.

A consolidation of all these observations points to a vicious cycle in which obesity leads to relative inactivity; inactivity tends to decrease energy expenditure and to increase relative calorie intake so as to cause a weight gain. Many writers today emphasize the importance of relative inactivity over that of overeating in identifying the etiology of obesity.

Social psychology recently embarked on still another aspect of obesity, and this research suggests an altogether different etiological model. Schachter and his colleagues (1968) have repeatedly demonstrated that the eating behavior of the obese depends on stimuli other than those motivating the nonobese. Schachter (1967) held that the eating of the obese is largely in response to "external" rather than "internal" cues, the latter being visceral or physiological states dependent on the period of food deprivation and generally associated with a conscious sensation called "hunger". These internal cues would include blood sugar levels and gastric motility. Schachter defines "external" cues as those stimuli that are not directly related to the nutritional level but which nevertheless affect food intake. They may include social stimuli and eating habits, and even such cognitive and sensory cues as taste. In support of his hypothesis, Schachter and his associates (1968) demonstrated that the obese individual eats just as much shortly after consuming an adequate meal as he does after food deprivation as long as ten hours.

The normal individual, on the other hand, eats considerably more after food deprivation than after completing a meal. Schachter also demonstrated that fear, known to reduce gastric motility and hence diminish hunger in the nonobese person, was no deterrent to the obese. Such findings support Schachter's first contention that fat people neither label nor interpret their physiological states in relation to nutrition or hunger, and eat independently of them. His belief in the cogency of "external" cues is borne out by several recent experimental and clinical studies. Nisbett (1968) demonstrated that taste is a more important determinant of the amount eaten in the case of the obese than for others. In one experiment obese and nonobese persons were given good-tasting and bad-tasting (adulterated) ice cream, after fasting, and when they were sated. Although the obese subjects ate more of both kinds of ice cream, they ate relatively less bad than good as compared with their non-obese counterparts; and once more the amount of food eaten by those who were overweight was unaffected by deprivation.

To test further the hypothesis that the overweight are relatively insensitive to variations in nutritional state, Nisbett et al. (1968) observed the way overweight people shop for food, and found that they did not buy more or shop more slowly than usual during periods of food deprivation, as nonobese persons did. In fact, the overweight shopper who had just eaten before going to market actually bought more than those who had not recently taken something to eat. Nisbett concludes that the act of eating may increase the attraction of food for the obese rather than diminishing it. It has also been shown (Schachter and Gross, 1968) that the passage of time itself has a significant effect on the eating behavior of the obese, irrespective of nutritional state. In this experiment the investigators manipulated the perceived time lapse by providing some subjects with an accelerated clock and others with one that fell behind real time: the obese ate almost twice as much on "fast time" and the reverse was true of the nonobese, who ate more



when the clock lagged. For all the subjects the experiment began at 5:00 p.m. Apparently the obese individuals in the group using the accelerated clock believed that it was "time to eat," and ate accordingly. We see the obese here responding to patterns of social habit and "appropriateness" rather than to an awareness of physical hunger or the cues of stomach contraction.

To summarize, these studies strongly suggest that the obese individual's eating behavior is relatively independent of his nutritional state, and that physiological correlates of food deprivation such as gastric motility and hypoglycemia, which are directly related to eating and the sensation of hunger in the individual of normal weight, are unrelated to them in the obese. Secondly, "external" factors such as the taste or sight of food, established eating habits, the passage of time, etc., are prime determinants in triggering eating behavior in the obese, although they are unrelated to their nutritional state. Nisbett (1968) points out that the overweight person's over-responsiveness to external cues and his unresponsiveness to the internal account for his aberrant eating behavior. To test this theory outside the laboratory, Goldman et al. (1968) studied a variety of real life situations that substantiated, at least intuitively, Nisbett's conclusions. To test the assumption that the presence of food teases the obese into eating whether or not they need nourishment, they studied the reaction of Jews fasting on Yom Kippur, in the absence of food cues. Neither the environment of the synagogue nor the ritual itself suggested eating, and the anticipation was accordingly that obese Jews would find it easier and less unpleasant to fast than thin Jews accustomed to heeding physiological reminders of the need to eat. Conforming to expectation, a higher percentage of overweight Jews fasted successfully, and they reported that going without food was easier for them the more time they spent in the synagogue. The control group did not relate the ease of fasting with the number of hours spent in worship.

To substantiate Nisbett's (1968) laboratory

finding that taste is a more important determinant of eating behavior for the obese than for others, Goldman et al. (1965) investigated the use by Columbia University students of their contract cafeteria. They expected that obese students would be more likely than the others to drop their cafeteria contracts after exposure to food generally considered uninviting, and this proved to be the case; a significantly larger number of overweight freshmen let their contracts expire. The investigators then turned to a real life test of the effect of perceived passage of time on eating behavior, and based their experiment on the eating behavior of fliers in the French Air Force. They felt that long distance East-West travel created a real life situation not unlike that in the time manipulation experiment of Schachter and Gross. Their assumption was that if an overweight individual's desire to eat is stimulated by his perception that it is "time to eat" rather than by physical cues related to nutrition, overweight fliers would adapt more readily to a mandatory new eating schedule than those less heavy, and this proved to be the case. The heavier the flier the less likely he was to be troubled by any discrepancy between his nutritional state and local meal times.

Such studies have considerable practical importance. Nisbett (1965) emphasizes that there is a wide range of orientation to food and eating, and that there are many important differences in the determinants of eating behavior. There is evidence that obesity may be related to certain basic personality characteristics formed at a very early age. There is evidence also that suggests a quantitative as well as qualitative difference in the motor behavior of the overweight. And, finally, Schachter and his colleagues offer convincing evidence that the obese do not perceive "hunger" as others do, but eat in response to various external food-related cues. Such observations have far-reaching implications if one wishes to choose a treatment program that is based on etiology of the disorder rather than the treatment of symptoms. For example, Nisbett (1968) suggested that the physician might

profitably concern himself in the treatment of obesity with his overweight patient's response to internal and external cues to eating, rather than concentrating on ephemeral weight loss. A discussion of possible treatment variables based on the observations discussed here will follow in a later paper. This later paper will include descriptions of various therapeutic attempts.

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# **Cancer Trends . . . .**

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## **Use of Thermography in Breast Cancer Detection**

ROBERT W. JESSEE, M.D.

The Virginia Commonwealth University/Medical College of Virginia Health Testing Center (HTC) is a new system for collecting, processing and reporting a variety of health data on individual patients. It offers a battery of tests and examinations performed by technical personnel utilizing automated and semi-automated equipment and a computer.

The HTC makes no diagnosis, provides no treatment and does not inform the patient of the test results. For these reasons, and others, the patient must be referred by a physician who will provide the indicated follow-up services. In this respect, the HTC is simply a tool to be utilized by the physician in caring for his patient.

During the first six months of HTC operation, a total of 356 individual physicians referred over 1,000 patients for testing. These patients were referred for several different reasons which demonstrate ways in which the physician may utilize the service. The reasons for referral included periodic health evaluations; establishing baseline health data on new patients; early disease detection; and, monitoring known disease.

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Sponsored by the Professional Education Committee of the American Cancer Society, Virginia Division.

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The package of tests and examinations performed in the HTC include vision, photomography, spirometry, tonometry, audiometry, a patient-administered health history, blood chemistry (SMA 12/60), hematology, serology, urinalysis, chest x-ray, dental x-ray, blood pressure, height and weight, electrocardiography and, for women, a Pap test and breast thermography.

The patients tested in the first six months of HTC operation included 403 women. In 68, or 16.87 percent of these women, the breast thermograms were reported as "abnormal". The "abnormal" reports have resulted in many comments and questions from referring physicians. This paper is addressed to these comments and questions.

### **History**

In 1800 Sir William Herschel, the great English astronomer, reported to the Royal Society of London that the sun's spectrum contained electromagnetic energy of longer wavelength than red light.<sup>1</sup> This discovery of infrared radiation lay dormant, except for questions of doubt, until 1840 when his photographer son, Sir J. F. W. Herschel, succeeded in recording the rays on paper forming what he called a "thermograph".<sup>2</sup> Sir John Herschel's discovery, too, was largely ignored until 1929

when Czerny expanded and improved the process.<sup>3</sup>

During and since World War II, in response to military needs, many infrared-sensitive de-

er the part, the more intense is the infrared energy radiated.

An infrared radiometer is a device capable of detecting and measuring with extreme ac-

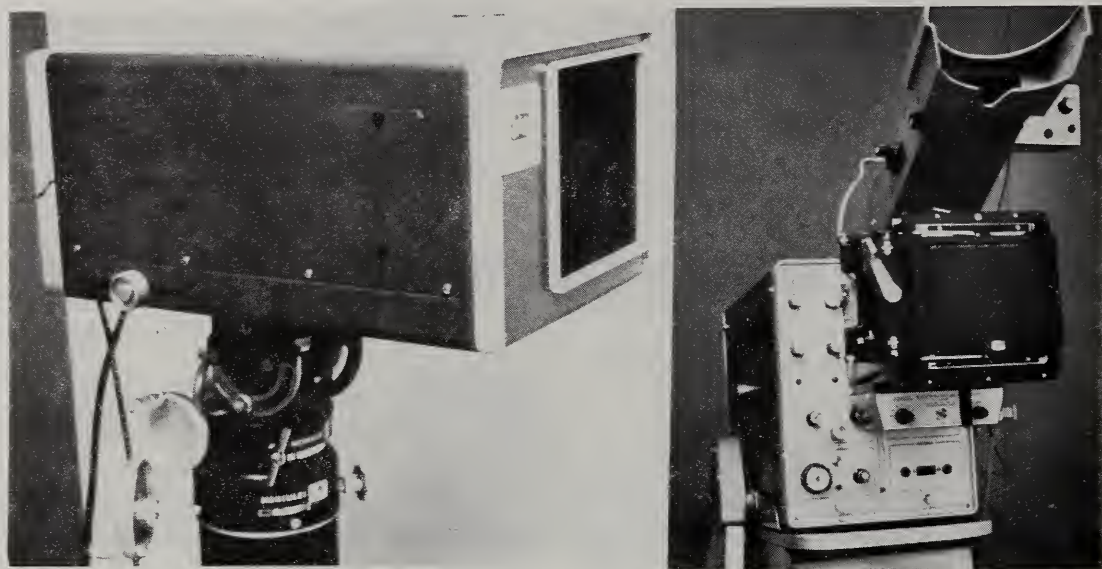


Fig. 1. A scanning optical system (above left) is used to selectively accept radiation emitted by the patient's chest and breasts; and, to focus the radiation accepted onto an infrared detector. A second component (above right) converts the infrared radiation into a visible image on a cathode ray tube (CRT). Photographs (Polaroid Land) are made directly from the CRT with the attached camera system.

tection devices have been developed. There has also been an expanding use and refinement of their capabilities in industry and science. But only in the past 15-20 years have there been attempts to adapt these devices for use in the field of medicine. Gershon-Cohen and Haberman are among the early investigators of the medical use of thermography in various diseases and are considered pioneers in the employment of thermography in the diagnosis of breast disease.<sup>4</sup>

### Technique

Breast thermography may be described simply as a technique for visually portraying the skin temperature and the superficial vascular patterns of the chest and breasts.

All objects, whether animate or inanimate, emit infrared energy as a function of their temperature. Man spontaneously emits infrared radiation in a range of 3-20 microns, the amount corresponding to the uneven heat levels of various parts of the body. The warm-

curacy this infrared radiation. The medical "thermograph" is a scanning infrared radiometer. As such, it is able not only to detect thousands of bits of temperature information per second, but it can display this information in the form of a heat picture or "thermogram".

The thermograph\* currently in use at the Health Testing Center permits the thermogram to be transferred to Polaroid film, producing a permanent record of the heat pattern of the patient's chest and breasts (Fig. 1). These films can then be qualitatively and quantitatively analyzed to determine differences in the thermal patterns.

The interpretation of the thermogram depends upon the comparison of various shades from white to black, with the blacker areas (the HTC employs the inverted mode) indicating the higher temperature and the lighter areas the lower (Figs. 2, 3 and 4). An "abnormal" thermogram, as reported by the HTC,

\*Barnes Engineering Co., 30 Commerce Road, Stamford, Connecticut.



means that there is a localized area of skin temperature elevation and/or clear inequality in vascular temperature patterns or configura-

use of thermography for the early detection of nonpalpable breast cancer. The technique is based on the observation, first made by Law-



Fig. 2. *Normal thermogram—cold breast pattern.*



Fig. 4. *Normal thermogram—mottled (patchy) breast pattern.*

tions between the two breasts (Fig. 5). Such differences in body surface temperatures may indicate changes over localized metabolic, in-

son, that breast cancer is associated with an elevation of temperature of the skin over the lesion.<sup>5</sup> It would be natural to suppose that

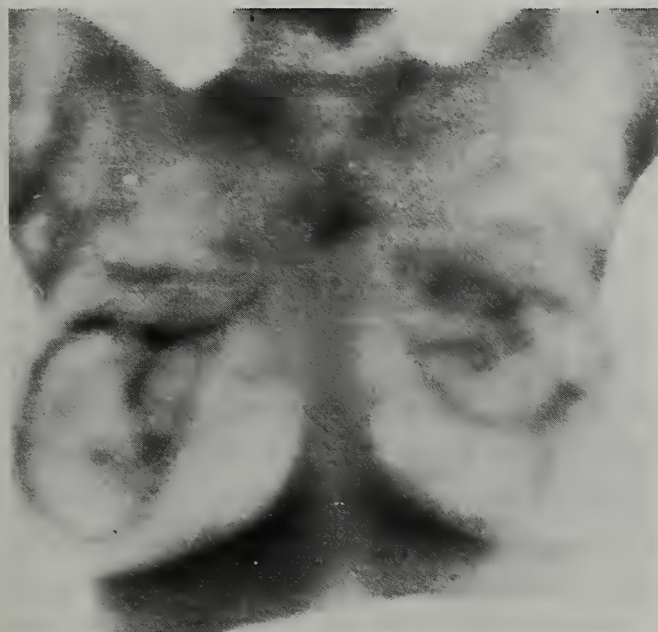


Fig. 3. *Normal thermogram—warm breast (vascular) pattern.*

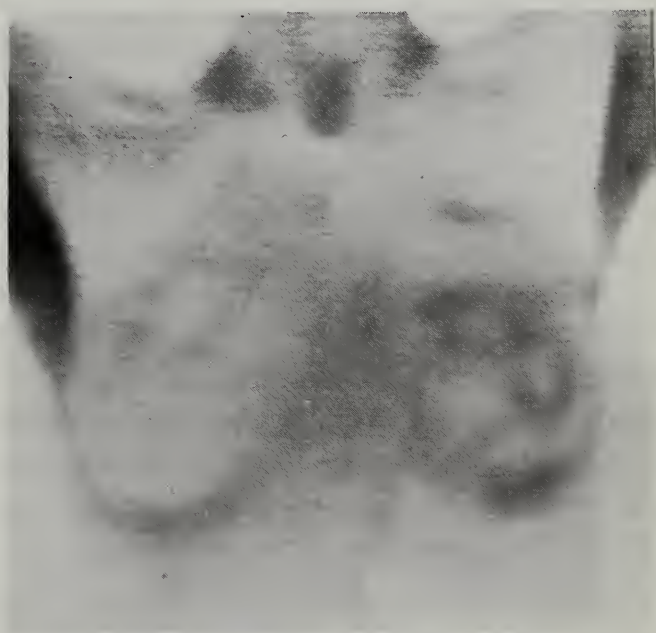


Fig. 5. *Abnormal thermogram—left breast.*

flammatory or malignant disturbances in and below the skin surface.

The HTC is particularly interested in the

the skin temperature elevation over pathologic processes would stem chiefly from the associated increased vascularity, but the cause may

reside more in the cellular activity of the lesions.<sup>6</sup> In any event, thermography can be helpful in detecting and pinpointing early breast cancers by registering the skin temperature elevations that accompany them.

### **Experience of Others**

Medical thermography references, in publications in this and other countries, have expanded from a mere 17 for the period 1933 to 1962 to well over 400 in the past 10 years. The first specific references to breast thermography were published in 1956 and have since shown alike growth in the medical literature. The following selected examples represent recent reports of breast thermography studies.

A 1965 report of concurrent radiographic and thermographic examinations of the breasts of 100 patients at the University of Texas M.D. Anderson Hospital and Tumor Institute discussed several interesting observations. In no patient in this series with carcinoma proved by biopsy was the thermogram negative. On the false-positive thermograms, some showed a return to normal limits after an interval of time and are therefore considered to represent a physiologic rather than a pathologic process. In summarizing the study, Swearingen stated that the true positive rate obtained by mammography combined with thermography is significantly improved.<sup>7</sup>

During the period November, 1965, and December, 1967, data were collected in a collaborative study comparing the results of thermographic examinations with those of both mammographic and clinical examinations. Under the auspices of the American Cancer Society, the study involved several medical centers and 3,518 patients. The results of this study indicate that among the outpatient populations of the participating hospitals, the sensitivity and specificity of thermography is quite similar to that of physical examination and mammography.<sup>8</sup>

In 1970, Gershon-Cohen et al. reported the results of breast thermography of more than

8,000 women.<sup>9</sup> In this series, abnormal heat in the superjacent skin over a confirmed cancer was evident in some 90 percent of breast cancers. Not all hot spots, however, indicated cancer. A certain percentage of normal breasts showed a localized temperature elevation greater than 1 degree C, as did a certain number of dysplastic breasts. Conversely, possibly 10 percent of cancers will be "cold", as discovered in the study's analysis of 200 consecutive thermograms of proved cancers.

### **Rationale for Breast Thermography**

While survival rates for cancer at other sites improve, breast cancer survival rates continue virtually unchanged. This is probably due to the fact that most breast cancers are found large and late. It is known that breast cancer survival rates are improved significantly when, through early detection, the lesion is small and not associated with metastases.

Therefore, in order to improve breast cancer survival rates within constraints of current knowledge, physicians must aggressively seek the early detection of breast cancer. All technological capabilities available must be applied to as many women as possible.

Physical palpation, by the patient and/or the physician, remains the primary method for detection of breast cancer. However, by the time the mass can be felt in the breast, it has probably been there several years and so cannot be considered "early".

Mammography affords a significant complement to the physical examination and can reveal lesions which will escape detection by palpation; but, due to cost and x-radiation restrictions, it is not the ideal method for periodically screening large numbers of patients.

Thermography is a relatively inexpensive, non-invasive procedure which does not require exposure to x-radiation and which can, in large screening programs, select women for further study.

Thermography will be "positive" in approximately 25% of the population and this group will have 60% of the breast cancers.<sup>10</sup> Thus,



thermography is the procedure of choice to separate from a large number of women the 75% who probably do not have breast cancer from the 25% who may either have a malignancy or have a high risk of later developing one.

Patients with abnormal breast thermal patterns should be suspected of having a cancer and it behooves the physician to utilize all conventional diagnostic methods to prove otherwise. If further study fails to determine the cause of the abnormal thermal pattern, the patient should be followed as one with a high risk for breast cancer.

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#### COMMENTS

The American Cancer Society and the National Cancer Institute, together, are sponsoring a program establishing twenty centers for early detection of breast cancer throughout the country. Each center will annually screen at least five to six thousand asymptomatic women over the age of thirty years. The examination will involve a detailed history, physical examination, thermography and mammography. This is an effort to determine the effectiveness of these techniques in detecting breast cancer at an early stage of development where the chance for cure is high. With this type of mass screening, valuable information should be available within several years.

As the author has pointed out, there are a significant number of false positive but few false negative thermograms. However, this technique appears to be effective in delineating a group of women who should be followed more closely and have periodic physical examinations with thermography and mammography or xeroradiography. These techniques hold great promise for earlier detection of breast cancer.

We would like to emphasize a point made by the author that palpation of the breast "remains the primary method for the detection of breast cancer." Thermography, mammography and xeroradiography are all adjuncts to the physical examination of the breast, *not* substitutes.

THE EDITORS

MACK I. SHANHOLTZ, M.D.  
*State Health Commissioner of Virginia*

## **Methadone Treatment and Rehabilitation Service**

The Bureau of Methadone Treatment and Rehabilitation Services of the State Health Department was developed through enactment of the 1972 General Assembly and is a part of the Department's Division of Special Health Services.

The Bureau's scope of activities includes all treatment programs and all hospitals which use methadone either for treatment of addiction or for analgesia. Its specific responsibilities are: the development of State-wide rules and regulations governing methadone usage, licensing, program evaluation, funding, and general assistance and guidance for ongoing programs.

In line with these responsibilities the following information about methadone and its present usage status is provided for guidance to interested medical personnel.

### **Methadone**

Over the past five years methadone has progressed from a seldom used analgesic to the controversial basis of addiction treatment programs. The drug itself was developed as a synthetic analgesic during World War II by Nazi scientists to supplement their limited pharmaceutical stocks. Discovered by American inspection groups after the War, it was brought to this country and manufactured for use in cough and pain. Methadone possesses actions similar to morphine, the most prominent of which involve the central nervous system and organs composed of smooth muscle.

Its link with addiction was minimal until 1965 when Drs. Dole and Nyswander initiated the classic methadone maintenance model at the Morris Bernstein Institute in New York.<sup>1</sup>

Their concept of treatment included high doses of methadone at an eventual point of stabilization. The reasoning for this choice of therapy was based on attempts to produce a "narcotic blockade" or to alleviate "narcotic hunger". In essence what was occurring was a cross-dependence from heroin to methadone, or in effect a substitution to a legal and more controllable narcotic. Although charges were made of sanctioning drug addiction and of medical enslavement, sound justifications were presented for continuance of well supervised programs. These included such reasoning as (1) to date no effective means have been provided to cure or correct addiction; (2) no facts have been presented to show that addiction is solely a physiologic or psychologic phenomenon; (3) without drug support, most addicts will continue in a pattern of heroin dependence; (4) the majority of addicts will employ illegal means to support their habits; (5) society must bear the burden of these usually non-productive and deviant members.

Because of both growing social pressure and new concepts in the addict personality, most methadone programs have adapted since 1965. While doses over 200 mg were once common, federal law now prohibits doses above 120 mg. Research has shown that doses above this level do not produce a corresponding effectiveness. Average clinic doses of 40-80 mg daily are now much more common.

Methadone itself has been employed in two ways by clinics: maintenance and detoxification. Legally, maintenance is defined as any uninterrupted treatment of an addict with methadone for a period longer than twenty-one days. Detoxification is the correlary de-



scribing treatment of twenty-one days or less. More common though is the use of these two terms to describe treatment techniques. One usually considers maintenance to be continuous methadone support at a fixed or stabilized dose for an extended period of time. Detoxification on the other hand implies a gradual withdrawal and is comfortable to the patient. Consequently, the detoxification process could conceivably last for a period of months.

Since methadone has a more prolonged cycle of action than morphine, some definite differences are seen in its administration. When given orally methadone will behave as a long-acting depressant, being able to prevent opiate withdrawal for twenty-four to forty-eight hours. If abruptly withdrawn, methadone abstinent symptoms will not appear for at least twenty-four hours, and the peak discomfort may not occur until the fourth or fifth day. Reportedly, withdrawal is not as severe as that encountered with morphine. However, addicts frequently complain of insomnia, anxiety and severe joint pain. This latter has led to the street myth that methadone causes "bone cancer" or "rotting of the bone marrow". Overdoses of methadone are likewise complicated by its long-acting properties. Even though a narcotic antagonist as naloxone or nalorphine may reverse the signs of intoxication the patient must be monitored continuously for recurrence of respiratory depression and treated repeatedly with the narcotic antagonist as needed.<sup>2</sup>

Being a narcotic, methadone carries a definite potential of diversion and resale. Poorly controlled programs have resulted in large stocks of black market drug and increased numbers of methadone overdoses. These coupled with charges of governmental manipulation and demands for drug-free "cured" patients have led to much more stringent regulation of the drug. As of March 15, 1973, shipments of methadone could go only to FDA registered clinics or hospitals. To become registered as a methadone clinic a diverse range of regulations must be met. These include:

1. Compliance with stipulated structuring and organization of a clinic.
2. Specific staff requirements including medical and psychological balancing.
3. Sufficient security measures to meet FDA and BNDD standards.
4. Assurance that each client receives all necessary medical and psychological examinations and treatment.
5. Each patient on maintenance must be at least 16 years of age and have a two-year history of addiction.
6. Strict limitations on take-home medication.
7. Attempt to detoxify all patients within two years of initiation of treatment.
8. Appropriate records are maintained.

The second institution capable of receiving and dispensing methadone is a hospital pharmacy which chooses to be licensed for this purpose. Once registered, the hospital may dispense methadone under the four following conditions:

1. The drug is being given to an addict as an inpatient within that hospital for no longer than three weeks with the intent of detoxifying him.
2. Methadone may be dispensed to an addict within the hospital on a maintenance basis if he or she has been hospitalized for treatment of medical conditions other than addiction and requires temporary maintenance treatment during the critical period of his stay.<sup>3</sup>
3. The drug may be used for analgesic purposes within the hospital on an inpatient basis.
4. In a physician's professional judgment methadone would be the drug of choice as an analgesic for treating a patient in severe pain, the drug will be available for use on an outpatient basis from an approved hospital pharmacy, or in a remote area from an approved community pharmacy. Prior to filling a physician's prescription for methadone for outpatients, the pharmacy shall obtain from the physician a statement indicating that all such prescriptions written by him will be limited to use for analgesia in severe pain. The phy-

sician shall agree to maintain records to substantiate such use. These records will be available in the hospital or made available at the request of the hospital administrator. In remote areas the approved community pharmacy is permitted to maintain these records or they may be forwarded to the State authority. On January 30 of each year, the names and addresses of all physicians who prescribe methadone for analgesia on an outpatient basis during the previous year shall be reported to the Food and Drug Administration.<sup>4</sup>

With the implementation of these regulations, all supplies of methadone were with-

drawn from all sources other than those registered hospitals or clinics.

Methadone will undoubtedly continue to be a controversial treatment mechanism. Like all other creations of man, however, it is capable of being controlled, directed, and utilized for man's benefit.

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4. Ibid, p. 26800.

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### Light Sustained Exercise Improves Physical Condition

Are you one of those millions who feel the need to get into better physical condition, but heartily detest vigorous exercise in general and calisthenics in particular? You have a lot of company. Now, a new research study offers an alternative.

Relatively easy non-fatiguing exercise sustained over a fairly long period of time can improve lung and heart action equally as well as vigorous training, says a report in the July issue of *Archives of Environmental Health*, a publication of the American Medical Association.

The exercise studies were performed with 15 men at Fort Wainwright, Alaska, in a winter field maneuver. During the ten-day maneuver the men hiked six miles per day, at a moderate average speed of three miles per hour. They did no heavy work or exercise, other than the six-mile walk.

Oxygen uptake and heart action during ex-

ercise were measured before and after the training period. A distinct increase in physical fitness was noted at the end of the period. Some of the subjects were normally active young soldiers, while others were researchers leading relatively sedentary lives.

The six-mile walk in two hours is approximately the distance covered in an average 18-hole round of golf.

The temperature during the maneuver period was mild for the season, and subjects were not exposed to overly severe cold.

Researchers were William H. Huibregtse, Ph.D.; L. Howard Hartley, M.D.; Lee Roy G. Jones, M.D.; William H. Doolittle, M.D., and Thomas L. Cribblez. The group are from the U.S. Army Research Institute of Environmental Medicine, Natick, Mass., and the Arctic Medical Research Laboratory at Fort Wainwright.



CURTIS J. KELLY, JD

Laboratory Services by Physicians

(Reference 6325.2 Item 7c HIM 14)

When an attending physician providing services in an office setting includes in his bill services obtained from an independent laboratory outside of his office, the independent laboratory where services were obtained should be identified. An independent laboratory is one that operates independent of the attending or consulting physician's office and is also presumed to be out of the hospital setting. Independent laboratories must have the approval of the local and state authorities and the Department of Health, Education and Welfare before billings can be considered by Part B of Medicare.

If the report of laboratory services is submitted on a physician's bill, i.e., in Part II of the SSA 1490 Form or on a separate statement, and the laboratory is not identified, it may be assumed, in the absence of information to the contrary, that the test was done in the laboratory the physician maintains as an adjunct to his own practice.

A physician attending a *hospital inpatient* who includes charges for laboratory services on his bill must identify the laboratory from which he obtained the services. If the services were rendered by a physician in a capacity as a qualified pathologist, it must be so indicated. This information is necessary so that we can apply the 100 percent reimbursement rate.

When a claim for physicians' services includes services by an unapproved independent laboratory, payment for the laboratory services must be denied. However, the physician's customary office visit charge, which ordinarily includes his evaluation of the test results, will be considered for payment.

Where we have determined that it was medically necessary for an independent lab-

oratory to pick up a specimen at a patient's home, payment may be made for this service. Medical necessity for such service would exist, for example, where a laboratory technician draws blood specimens from a homebound patient who is *bedfast* or otherwise *completely non-ambulatory*. However, where the specimen involved is of the type that could reasonably be mailed, e.g., urine or sputum, pickup services would not be considered medically necessary.

When the physician bills laboratory procedures from his office, each procedure needs to be separately listed along with a corresponding diagnosis and charge for that procedure. We will assume if an independent laboratory is not shown in item 13 of the SSA 1490 that the procedure was rendered in the physician's office.

If you bill panel tests, profile tests or series tests such as SMA 12, Profile 4, etc., please identify the specific panel, profile or series. Submit a single charge for the entire series indicating the number of tests involved rather than to charge individually for the component parts. The use of the following Travelers Medicare Codes may be used for these tests:

Procedure Code	No. of Tests Performed
T8500	3
T8501	4
T8502	5
T8503	6
T8504	7
T8505	8
T8506	9
T8507	10
T8508	11
T8509	12
T8510	over 12

Example: SMA 12 would use code T8510 if more than 12 individual tests were performed.

# **Virginia Regional Medical Program . . . .**

EUGENE REYES PEREZ, M.D.

## **Current Status of the Program**

### **Background**

During the past seven months, the Virginia Regional Medical Program has been charting a most difficult course. Regional Medical Programs (RMPs) were omitted by President Nixon in his 1974 budget submitted to Congress on 29 January and within three days orders to begin closing operations were issued from HEW.

The orders to phase out stunned RMPs all across the United States. In Virginia, we had undergone a highly successful site visit in August 1972. VRMP requested \$2.9 million for twenty-seven projects and fourteen staff activities. The National Advisory Council on Regional Medical Programs recommended that VRMP be funded at \$1.8 million and that both triennial status and a developmental component award be given.

On 3 January 1973 we received word that, because the HEW budget allocation was still under review, grant support would be authorized only through the first half of our budget period to 30 June 1973 in the amount of \$604,663. The intention of the six-month fund award was quite clear after President Nixon's budget announcement; Regional Medical Programs had to terminate all projects and activities by 30 June 1973. Obviously, the actions affecting RMPs were only a part of the current controversy between the Executive and Legislative branches of government.

### **Chronology of Events**

1. On 2 February 1973 VRMP received official notice that all 56 RMPs were to be phased out by 15 February 1974. VRMP was to submit a proposed phase out plan by 15 March 1973.

2. By mid-March several Congressional committees had begun efforts to extend RMPs for one year in order that the programs might be thoroughly studied and evaluated by Congress. Sen. Edward Kennedy and members of the Senate Labor and Public Welfare Committee co-sponsored a stop-gap bill to extend twelve Public Health Act laws that were to expire 30 June 1973. A similar measure was introduced in the House of Representatives by Congressman Paul Rogers.
3. With a vote of 72-19, the Senate passed the omnibus bill on 27 March. The bill in the House, co-sponsored by over 100 members, received the most overwhelming vote of any legislation drafted during the session—372-1.
4. On 5 April 1973 VRMP received a notice which approved the following activities for continuation beyond 30 June 1973:
  - a. Nine staff members, necessary for closing VRMP operations, could be maintained through 30 November 1973.
  - b. The Emergency Coronary Care Project was to be funded through 30 September 1973.
  - c. The Dental Feasibility Study was to be terminated on 15 December 1973.

Funds for all other projects and activities were to be terminated on 30 June 1973.

5. On 5 June 1973 the Senate voted on House amendments to the extension legislation. The bill was approved with 94-0 vote.
6. Although the Administration had originally opposed the legislation, the Congressional vote made it clear that a veto



could not be sustained. President Nixon signed the extension bill, P.L. 93-45, on 18 June 1973.

### **Current Status**

1. To date, the order to phase out has not been rescinded. Nine projects funded by VRMP have been terminated and our five field offices have been closed.
2. A brief telegram regarding program continuation was received from Regional Medical Programs Service on 27 June 1973. As a result of this telegram, we were able to retain the remaining program staff.
3. On 6 July 1973 VRMP received a telegram stating that unobligated funds (approximately \$6.9 million) from fiscal year 1973 were being released to RMPs. However, no expenditures could be made from the funds until the Administration made decisions regarding a new mission and review criteria for Regional Medical Programs.
4. Following the 6 July 1973 telegram, VRMP received notice of an additional award of \$202,313 for future activities. However, it was stated that the money could not be used for any purpose other than those activities to be earmarked by HEW.
5. Most recently, VRMP received a telephone call requesting additional information as to requirements for central staff necessary for maintaining a viable program. VRMP has requested funds for staff activities and the authority to rebuild the staff back to twenty employees.

### **Conclusion**

At this juncture, there are a number of serious problems facing RMPs. The Regional Medical Programs Service still insists on its own interpretation of the law. Public Law 93-45 has no changes from the earlier legislation excepting the termination date, yet RMPS is planning a new mission statement and new review criteria.

It is rumored that the role for Regional Medical Programs will be in areas such as health education consortiums, support of CHP (b) agencies, emergency medical services, hypertension, kidney, and early development of professional standards review organizations. These options have already been cleared by the Assistant Secretary for Health and are awaiting the decision of HEW Secretary Casper Weinberger. It is felt that while these program areas deserve consideration, the general situation represents further erosion of local decision-making and creates a national rather than regional program.

Another threat to RMPs comes in the form of funding. While phase out monies have been applied for maintaining program staff, no money has been made available for activities. This position greatly endangers our opportunity for 3-year extension legislation in June 1974.

It is hoped that by October 1973, a decision will have been made regarding funds for Regional Medical Programs. With that occurrence, VRMP plans to convene its Board of Directors and Regional Advisory Group to discuss the situation relative to the future course for the Virginia Regional Medical Program.

## Editorial . . . .

### Horizon Fever

“There is not enough darkness in all the world  
to put out the light of a single candle.”

**T**HE ABOVE QUOTATION comprises the words of a child, written on a crude piece of plank which served to mark the grave of a pet dog, killed in a World War II London air raid.

Inasmuch as the man to whom I am disposed at this time to pay something of a tribute and to cite as a cardinal example of one possessed of “horizon fever” is perhaps best remembered as a dissipator of darkness, this epitaph would seem to be a fitting keynote to the following commentary. Who was this man?

One hundred and 32 years ago he was born in Denbigh, Wales, and was baptized under the name of John Rowlands.

Like many men destined to scale the heights in human achievement, he began life amid the most miserable surroundings. He was raised from infancy to early childhood by first his maternal then his paternal grandparents, but received no kindness from any of them. At the age of six he was taken to St. Asaph Union Workhouse where he remained until he reached the age of fifteen when he went to Liverpool to live for three years, in poverty, with an uncle.

In 1859 he sailed as a cabin boy for New Orleans where he was adopted by the first man history reveals ever to have befriended him. He took the complete name of this benefactor and bore it to his death. Who was this man?

In 1861, when our Civil War broke out, this adventuresome wanderer, then 20 years of age, enlisted in the Army of the Confederacy but was taken prisoner at the battle of Shiloh, April 1862. After two month's imprisonment at Camp Douglas, Chicago, he obtained release by enrolling in the Federal Artillery. In less than a month he was discharged as unfit.

In November, 1862, he returned to Liverpool, very poor, in bad health, in shabby clothes and made his way to Denbigh, but was turned away from his mother's door. For a livelihood he took to the sea—was wrecked off Barcelona, and in August of 1864, he enlisted in the United States Navy. Who was this man?

Shortly after the close of the Civil War he crossed the plains to Salt Lake City, Denver and other parts and became a vivid descriptive writer. Thus began a series of adventures in search of copy, which led him through Asia Minor, Tiflis and Tibet.



In 1866 he revisited Denbigh and St. Asaph—returning thence to America where he joined General Hancock's expedition against the Red Indians, acting as correspondent for the *Missouri Democrat* and other papers. Who was this man?

His reports induced the *New York Herald* to send him to accompany the British expedition of 1867-1868 against the Emperor Theodore of Abyssinia. Successfully sending through the first news of the fall of Madala, he received a roving commission from Mr. James Gordon Bennett, the proprietor of the *New York Herald*. He went to Crete and Spain, but in 1869 was recalled to Paris by Mr. Gordon Bennett, Jr. He was then 28 years of age.

In 1872 he again visited America and in 1873, as war correspondent of the *Herald*, he accompanied Wolseley's expedition to Ashanti. Who was this man?

During the succeeding 30 years he traveled widely and wrote voluminously.

In 1890 he married Miss Dorothy Tennant, second daughter of Mr. Charles Tennant—sometime member of Parliament for St. Alban. On his honeymoon he visited the United States for the last time, and in 1891-1892 went to Australia and New Zealand on a lecturing tour.

On his return to England he was renaturalized as a British subject and, after an unsuccessful attempt in 1892, was elected a member of Parliament in 1895. He did not seek reelection in 1900. Who was this man?

His travels carried him to Egypt, Syria and Persia and in 1884 and 85 he acted as technical adviser to the American plenipotentiaries at the Berlin Conference. However, by far his most noteworthy exploits were carried out in Africa.

No man has ever explored Africa so thoroughly and extensively, and probably no explorer of any time, in any clime, ever surpassed this man for fortitude, endurance and determination to reach an objective or achieve a purpose. He is said to have traversed more miles on the continent of Africa than any other ten men, and his explorations were consummated in a day and age before any of the more modern means of conveyance were ever heard of and when disease was rife and both the natives and the wild animals were savage and treacherous.

In all, he led four expeditions into Africa—each of about three years' duration.

The second of these expeditions is said to have surpassed any other single African exploration, in terms of accomplishment. The discovery of the course of the Congo River, though the greatest, was but one of the many geographical problems solved during this memorable expedition. Of the three white men accompanying the leader, all died.

On the third expedition he entered into an agreement with the great Congo Arab Chief, Tiffoo Tib and went by way of Zanzibar and the Congo State to Albert Nyanza, where he established contact with Emin Pasha, Governor of the equatorial provinces of Egypt, who had been isolated by the Mahdist risings of 1881-1885.

For 160 days he forged ahead through infinite miles of jungle and forest without seeing a piece of greensward "the size of a cottage chamber floor". He traversed this piece of terrain three times on this expedition. Of the 646 men with whom he entered the Congo, but 246 remained. Tiffoo Tib had broken faith and nearly all of his rearguard had been massacred. It was on this expedition that he gained much information concerning the Pigmy tribes.

On his fourth expedition he went to Cape of Good Hope and visited Bulawayo, Victoria Falls and the Zambezi.

As momentous as were his exploits and discoveries in these second, third and fourth expeditions however, it is difficult to gainsay that his first African expedition, 1869-1872, was the most famous of all; for it was upon this expedition that on 10th November 1871, after having overcome innumerable and seemingly insurmountable difficulties, he came upon the object of his search at Ujiji, on Lake Tanganyika, and the four words he is alleged to have uttered became synonymous with his name—if albeit indeed, for long, the bywords of nearly every English speaking schoolboy.

His most famous book, "In Darkest Africa", was published (in six languages) in 1890.

In 1899, in recognition of his accomplishments in Africa, he was made a Knight Commander of the Bath, and therefor, attained the title of Sir.

On 10th May 1904, at his home in Richmond Terrace, Whitehall, this man's dauntless soul passed to time and to eternity, his immortal memory, in a sense, became a legacy for the everlasting keeping of the English race, and at Pirbright his earthly remains were consigned to the dreamless dust.

The monolith over his grave bears the inscription:

HENRY MORTON STANLEY  
1841-1904

with his African name . . . . "BULA MATARI"

and the one word . . . . . AFRICA

Here was a man typical of a number who have been instrumental in the creation of an awesomely majestic and astoundingly viable empire. Here was a man typical of a number who have been imbued with the qualities of inquisitiveness, enterprise, self-sacrifice, self-discipline, courage, determination, faith and such other attributes as are essential to the stimulation of one to perform superhuman or Herculean feats. Here was a man of whom it may be said that, along with Marco Polo, Columbus, Ferdinand Magellan, Vasco Nunez de Balboa, Simon Bolivar, Robert Cavelier de La Salle, George Rogers Clark, his younger brother, William Clark, in company with Meriwether Lewis, Captain James Cook, Sir Thomas Stamford Raffles, Robert Edwin Peary, Robert Falcon Scott, Roald Amundsen, Richard Evelyn Byrd, Charles Augustus Lindbergh, and scores of others—including our present-day Astronauts—he had "Horizon Fever".

H. LAMONT PUGH, M.D.



## Our Tree from the Island of Cos

SOMETHING has been added to the headquarters of The Medical Society of Virginia. The first thing a visitor now sees when he opens the front door is a sprightly little tree on the desk of our esteemed receptionist, Mrs. Lillian Edmunds. Every receptionist does not have a sycamore tree upon her desk and it should be pointed out that ours is a very special one. This tree has a remarkable pedigree, for its father, or perhaps one should say, its mother, is probably the most distinguished tree in the world.

About 2,400 years ago Hippocrates (460-377 B.C.) relaxed in the shade of this spreading sycamore while he taught aspiring medical students the principles, the practice and the art of medicine. He also espoused the do's and don't's that have been incorporated in the present-day Hippocratic Oath. The "Father of Medicine" has long since passed on but his favorite tree has been well cared for down through the centuries. It is true some of its limbs have grown a little weary, but those that are beginning to sag have been supported by marble columns and everything is quite shipshape.

Every spring a fresh crop of leaves appear and hide, in part, the massive trunk which measures over 45 feet in circumference. Each fall millions of seeds float down, but until recently it was impossible to identify the seeds that could germinate from the far more numerous ones that would prove to be infertile. Less than a decade ago Dr. Oszkar Sziklai, Professor of Forest Genetics at the University of British Columbia, developed a method of identifying the fertile seeds by the use of "soft" x-rays. Fortunately, this occurred in Canada, for had it been learned that a potential germinating seed had been exposed to radiation, however "soft", in this country, the FDA and HEW doubtless would have put an end to such foolishness.

The discovery of the fertile seed opened a new and fascinating vista to Dr. William C. Gibson, Professor of the History of Medicine at the same university in British Columbia. Dr. Gibson had long desired to raise his own Tree of Hippocrates from the original on the island of Cos. Using viable seeds the two Vancouver professors have grown thousands of saplings. The oldest ones are now a little over six years in age and have reached a height of 12 or 14 feet.

Dr. Gibson is a member of the International Hippocratic Foundation. For years this organization has endeavored to raise sufficient funds to enable the erection of a building near Hippocrates' tree where physicians could visit and possibly attend meetings at the very font of medical knowledge. Perhaps our trees will be the answer for it is hoped the recipient medical societies, medical schools and teaching hospitals around the nation will help fund the Medical Foundation of Cos.

When the Schering Corporation heard of Dr. Gibson's desire to propagate these trees in America it undertook to distribute the small saplings to various state medical societies and teaching centers as mementos of Hippocrates. Each tree is dispensed in an ornate Grecian vase of unusual design. In the

meticulous manner, long associated with the Schering Pharmaceutical Company, information is furnished with each sapling regarding the care of these delicate imports. Especial attention is given to the degree of protection required in various parts of this country. We in Virginia learn we are fortunately located in Zone 3. This means our geographic location will permit our little sycamore to grow in a "garden" area with a minimum of protection. However, we are warned that our little two-year old will require indoor protection throughout its second summer for undue heat is hazardous to young trees, as well as to infants, until they become acclimated to our mid-summer temperature.

Thus far we have referred to our new arrival as a sycamore but it has a more exotic title—*Plantanus orientalis*. It seems that all plane trees, like all Gaul, are divided into three parts. Hippocrates' tree is of the *orientalis* variety. This is the plane tree so frequently referred to in the Bible. Our native sycamore is called the *Plantanus occidentalis*. Our British friends, who always like to be a little different, have a "London" variety, which is found in many parks throughout England. These are termed *Plantanus acerifolia*.

Regardless of terminology we are glad to report our American sycamores have two unique distinctions. This tree attains the largest proportions of any hardwood or broad-leafed tree in America. It also has the largest single-bladed leaf of any native tree. After all this, it is a little disappointing to learn that its use is largely confined to the making of musical instruments and butcher's blocks. Perhaps the present shortage of steaks will relieve the *P. occidentalis* from its more mundane purpose and hereafter we will find it only in musical circles.

Meanwhile we hope our little *P. orientalis* will like its new home and will continue to prosper, for if it lives as long as its parent it will shelter visitors to our headquarters until the year 4,500 A.D.

H. J. W.



## **Calendar of Events**

ANNUAL CARDIOVASCULAR SYMPOSIUM—Sponsored by Council on Clinical Cardiology—American Heart Association—Colony Inn—Williamsburg—October 11-13, 1973.

THE MEDICAL SOCIETY OF VIRGINIA—Annual Meeting—Holiday Inn/Scope—Norfolk—October 18-21, 1973.

MEDICINE AND RELIGION—Annual Symposium—Co-sponsored by Chaplain's Department, Portsmouth Naval Hospital, American Medical Association and The Medical Society of Virginia—Portsmouth Naval Hospital—October 25, 1973.

"MANAGEMENT OF DIABETES MELLITUS"—Sponsored by Division of Family Practice, University of Virginia School of Medicine and Virginia Diabetes Association—University of Virginia School of Nursing Auditorium—Charlottesville—November 8, 1973.

SOUTHERN MEDICAL ASSOCIATION—Annual Meeting—San Antonio, Texas—November 12-15, 1973.

MEDICAL ASPECTS OF SPORTS—National Conference—Sponsored by American Medical Association—Royal Inn—Anaheim, California—December 1, 1973.

AMERICAN MEDICAL ASSOCIATION—Clinical Session—Anaheim, California—December 1-5, 1973.

CONFERENCE ON TEAMWORK FOR THE HANDICAPPED CHILD—Sponsored by the Virginia Council on Health and Medical Care—Hilton Inn—Virginia Beach—December 9-11, 1973.

AMA NATIONAL LEADERSHIP CONFERENCE—Marriott Motor Hotel—Chicago—January 25-27, 1974.

AMA-AMPAC PUBLIC AFFAIRS WORKSHOP—Washington—Hilton Hotel—Washington, D. C.—March 15-17, 1974.

NATIONAL CONFERENCE ON RURAL HEALTH—Sponsored by AMA—Detroit—Hilton Hotel—Detroit, Michigan—April 25-26, 1974.

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The Medical Society of Virginia maintains a registry of medical meetings and programs of interest to Virginia physicians. You can help by keeping us advised of any meetings scheduled in your area. This will not only help others avoid conflicts but also provide helpful information on opportunities for continuing education.

## New Members.

The following new members were received into The Medical Society of Virginia during the month of July:

Necati Mehmet Alp, M.D., Manassas  
John Lawrence Antus, M.D., Centreville  
Lorenzo P. Archer, M.D., Norfolk  
Herbert E. Bill, M.D., Wise  
Walter Bernard Blair, M.D., Roanoke  
Wendell Owen Blake, M.D., Fort Lee  
Howard Preston Boggess, M.D., Roanoke  
Thomas G. Boisclair, M.D., Richmond  
William C. Briscoe, M.D., McLean  
Willis E. Brownstein, M.D., McLean  
John Thomas Bunin, M.D., Martinsville  
Antonio Jose Cachay, M.D.,  
Washington, D. C.  
John A. Carlston, M.D., Virginia Beach  
Udom Chanachote, M.D., Front Royal  
Che Tong Chang, M.D., Clintwood  
C. Glen Click, M.D., Roanoke  
James Webb Cole, III, M.D.,  
Charlottesville  
Richard M. L. Coleman, M.D., Staunton  
Harvey Daniel Davis, M.D., Norfolk  
James David Dimmett, M.D., Vienna  
Gary G. Ghahremani, M.D., Richmond  
George Tendero Gonzales, M.D., Roanoke  
Stephen I. Granger, M.D., Reston  
Harold Bernard Haley, M.D., Roanoke  
Robert Harvey Keiter, M.D., Richmond  
Mohammad Aqiq Khan, M.D., Falls Church  
Robert W. Kimball, M.D., Leesburg  
Beryl L. Langley, M.D., Virginia Beach  
Larry Landis Legum, M.D., Virginia Beach  
Russell Meyer, M.D., Virginia Beach  
Charles Harner Miller, M.D., Woodstock  
Ira David Miller, M.D., Norfolk  
Wesley Edward McEntire, M.D.,  
Richmond  
Fernando B. Ona, M.D., South Boston  
Kamal Okail, M.D., Richmond  
Alexander N. Panos, M.D., Annandale  
C. Dick Park, M.D., Norfolk  
A. M. Patterson, Jr., M.D., Woodstock  
Jerry O'Don Penix, M.D., Norfolk  
Monir Wasef Philips, M.D., Alexandria

Roger Victor Pierson, M.D., Portsmouth  
Donald Pollock, M.D., Alexandria  
Kyung U. Rhee, M.D., Virginia Beach  
Kenneth X. Robbins, M.D., Alexandria  
Enda K. Ryan, M.D., Leesburg  
Ralph Lloyd Swank, II, M.D., Norfolk  
Mary A. Tattersall, M.D., Richmond  
Jose Saul Tissera, M.D., Falls Church  
Robert Michael Wein, M.D.,  
Newport News  
Robert M. White, M.D., Arlington  
Michael Willoughby, M.D., Leesburg  
John Raymond Wynn, M.D., Richmond  
Paul Timothy Yoder, M.D., Clintwood

## Dr. William M. Deyerle,

Richmond, has been appointed professor of orthopedics and acting chairman of the division of orthopedics of the Medical College of Virginia. His appointment was effective August 1973.

## Dr. William M. Eagles,

Richmond, has been installed as president of Kiwanis International. Prior to his election as president-elect, he had served as treasurer, vice-president and as a trustee. Dr. Eagles had also served as president of his Kiwanis Club and as lieutenant-governor and governor of the Capital Kiwanis District.

## Evaluation of Hyperimmune Gamma Globulin for Preventing Serum Hepatitis.

It is well recognized that medical and paramedical personnel have a greater than normal risk of developing hepatitis as a result of accidental inoculation (needle stick, broken glassware, ingestion of contaminated blood at the time of pipetting, etc.). Current evidence indicates that standard gamma globulin provides little or no protection against developing serum hepatitis.

The Richmond Veterans Administration Hospital is participating in a national cooperative study together with the National Institute of Health in which the effectiveness of hyper-



immune gamma globulin (with high titer antibody against Australian Antigen) will be compared to that of standard gamma globulin on a random basis.

All those accidentally exposed to hepatitis virus (excluding blood transfusion) from the Richmond area, willing to participate in the study and receive treatment, are invited to call Dr. Z. R. Vlahcevic or Dr. D. L. Mackenzie at the Veterans Administration Hospital, Richmond, as soon as possible after exposure.

### **Therapy of Acute Pancreatitis.**

A randomized prospective trial of the therapy of acute pancreatitis not associated with gallstones is being carried out at the McGuire VA Hospital. Prior studies have indicated no advantage to any therapy given for this disorder in this hospital. The therapy trial includes the use of nasogastric suction, anticholinergics, both or neither. A modest number of patients have been enrolled and more are sought. Referral of patients capable of admission to the Veteran's Hospital suspected of having this diagnosis would be appreciated. The trial is being conducted by Dr. Donald Switz, Division of Gastroenterology and Medicine, Medical College of Virginia, who can be reached by calling (804) 770-4171.

### **Safety in Childhood,**

An Overview of the Problems and Practices, will be presented by the Department of Pediatrics of the University of Virginia, November 12-14.

Subjects to be discussed include: Automobile Safety; Infant and Child Restraints; School Transportation; Flammable Clothing; Poisoning; Hazards of Children's Products; Home Appliances Safety; Safety in Playground and Organized Sports; Fire Safety; Water Safety; Playground Equipment and Bicycle Safety.

The Guest Faculty is: Ms. Elaine Besson, Mr. Carl Blechschmidt, and Mr. Warren Mathers, Consumer Product Safety Commission, Washington, D. C.; Dr. Brian D. Blackburn, Office of Chief Medical Examiner,

Washington, D. C.; Dr. Charles Seymour, President, Physicians for Automotive Safety, Irvington, New Jersey; Mr. Emile Grenier, Consulting Engineer to Ford Motor Company, Ann Arbor, Michigan; Commander James Kearney, United States Coast Guard, Portsmouth; Mr. Keith Kingbay, Schwinn Bicycle Company, Chicago; Dr. Howard C. Mofenson, Chairman, Accident Prevention Committee, AAP., Mineola, New York; Dr. James M. Robey, Acting Director, Office of Program Planning and Evaluation, National Center for Health Statistics, Rockville, Maryland; Mr. James V. Ryan, National Bureau of Standards, Washington, D. C., Ms. Annemarie Shelness, Physicians for Automotive Safety, Rye, New York; Mr. Fred B. Shippee, Director, Project SAFE, American Apparel Manufacturers Association, Arlington; Mr. Howard Summers, Assistant Chief Fire Marshal, State Corporation Commission, Richmond; Dr. William G. Thurman, Dean, Tulane University School of Medicine, New Orleans; and Mr. Darrell Winslor, Superintendent of Parks, Northern Virginia Regional Park Authority, Fairfax.

University faculty is Drs. McLemore Birdsong; Gerald W. DeWitt; Jack Fisher; Jacob A. Lohr, and William I. Neikirk.

For further information, please contact Dr. Gerald W. DeWitt, Department of Pediatrics, University of Virginia School of Medicine, Charlottesville, Virginia 22901.

### **Spring Refresher Congress.**

The 46th Annual Spring Refresher Congress for eye, ear, nose and throat specialists, sponsored by Gill Memorial Hospital Foundation, Roanoke, will be held at the Grapetree Bay Hotel on St. Croix in the Virgin Islands, January 13-18, 1974.

Interested persons desiring more information may obtain it from C. T. Akers, Jr., Administrator, P. O. Box 1789, Roanoke, Virginia 24008.

### **Sleep as an Entity in Medical Practice.**

The Departments of Psychiatry and Family Practice of the Medical College of Virginia

will present a postgraduate course in Sleep as an Entity in Medical Practice on October 24. Guest Faculty will be Dr. Harold Goldberg, Director, West-Ros-Park Mental Health Center, Boston, and Dr. David R. Hawkins, Professor and Chairman of the Department of Psychiatry of the University of Virginia. Medical College of Virginia Faculty members are Drs. James L. Mathis and Fitzhugh Mayo. Five prescribed hours by the American Academy of Family Physicians have been applied for.

Further information may be obtained from Dr. James L. Mathis, Department of Psychiatry, Medical College of Virginia, Richmond 23298.

### **The Alton D. Brashear Postgraduate Courses in Head and Neck Anatomy**

Will be held at the Medical College of Virginia, January 21-24, 1974. Fresh specimens (unpreserved) whenever possible will be used in the dissections and individual approaches are welcomed. Lectures and demonstrations will augment the laboratory work. The course is approved for 40 elective hours by the American Academy of Family Physicians and the Academy of General Dentistry. The size of the class will be limited to thirty-two.

Further information may be obtained from Dr. Hugo R. Seibel, Department of Anatomy, Medical College of Virginia, Richmond, Virginia 23298.

### **Family Psychotherapy.**

The tenth Georgetown University Symposium on Family Psychotherapy will be held November 15-16 at the University Medical Center, Washington, D. C.

For further information, write to Francis D. Andres, M.D., Department of Psychiatry,

Georgetown University Medical Center, 3800 Reservoir Road, N. W., Washington, D. C. 20007.

### **Radiology of the Chest.**

A tutorial postgraduate course on radiology of the chest will be given at Duke University Medical Center, March 25-27, 1974. The course is designed for radiologists whether in training or practice and the emphasis will be on personalized tutorial type of teaching of basic subjects on the chest at the viewboxes by recognized authorities using their original roentgenograms with ample opportunity for discussion. There will be a maximum of 144 registrants and twelve faculty members.

Full information may be obtained from the program director, Robert McLelland, M.D., Department of Radiology, Box 3808, Duke University Medical Center, Durham, North Carolina 27710.

### **Emergency Room Physician.**

Accredited 280-bed progressive general hospital in beautiful Huntington, West Virginia. Excellent income and working conditions. Send resume to Assistant Administrator, Cabell Huntington Hospital, 1340 Sixteenth Street, Huntington, West Virginia 25701. (*Adv.*)

### **Staff Physician**

For active Outpatient/Admitting Service. Very strong staffing support. U. S. Licensure required. 875-bed GM&S hospital affiliated with medical school. Excellent retirement and leave benefits. Nondiscrimination in employment. Contact Chief of Staff, VA Hospital, Richmond, Virginia 23249. Telephone (804) 233-9631, Extension 202. (*Adv.*)



# Obituary . . .

## **Dr. James Mortimer Lynch,**

Formerly of Cape Charles, died in Louisville, Kentucky, March 1. He was seventy-four years of age. Dr. Lynch graduated from the George Washington University School of Medicine in 1905. He located in Cape Charles in 1908 and continued his practice there until his retirement in 1954. Dr. Lynch was appointed Assistant Surgeon, U. S. Public Health Service in 1909 and in 1910 was appointed surgeon for the Pennsylvania Railroad Company. He was a Mason and a charter member and past president of the Cape Charles Rotary Club.

Dr. Lynch was a past president of the Northampton County Medical Society. He had been a member of The Medical Society of Virginia for sixty-five years.

A son and a daughter survive him.

## **Dr. Blanton Page Seward,**

Roanoke, died August 25. He was seventy-six years of age and a graduate of the Medical College of Virginia in 1922. Dr. Seward practiced in Surry County for two years and with Dr. Manfred Call in Richmond for three years, locating in Roanoke in 1928. He was a member of the staff of the Lewis-Gale Hospital until his retirement in 1967. Dr. Seward had been a member of The Medical Society of Virginia for forty-nine years.

His wife and a daughter survive him.

## **Dr. and Mrs. Carl Wise Meador,**

Richmond, died September 1, in a fire at the Hafnia Hotel in Copenhagen, Denmark. They were to have arrived in Richmond late that night after a three-week vacation.

Dr. Meador was sixty-one years of age and a graduate of the Medical College of Virginia in 1936. He had been in practice in Richmond for thirty-five years. Dr. Meador was a former president of the Richmond Academy of Medicine and the Virginia Academy of Family

Physicians. He had been a member of The Medical Society of Virginia since 1937.

Dr. and Mrs. Meador are survived by three daughters. A brother is Dr. Blake Meador, also of Richmond.

## **Dr. and Mrs. John Philip Eastham,**

Richmond, also died on September 1 in the fire in Copenhagen at the Hafnia Hotel. They were accompanying Dr. and Mrs. Meador and were to have arrived back home late that night.

Dr. Eastham was sixty-three years of age. He graduated from the Medical College of Virginia in 1937. Dr. Eastham practiced for a time in Culpeper, his home city. He served as Colonel in the Army Reserve and was a consultant at Fort Eustis. Dr. Eastham had been a member of The Medical Society of Virginia for thirty-four years.

Dr. and Mrs. Eastham are survived by a son and a daughter.

## **Dr. Hume.**

David Milford Hume, until recently a member of this Academy, was born in Muskegon, Michigan, and graduated from Harvard University in 1940. At the University of Chicago he pursued endocrine physiology and night life, took his medical degree and staked a lasting reputation for indomitable mental and physical energy. For surgical training he returned to Harvard under Dr. Francis Moore, who was then launching an epochal renaissance in surgical physiology. Dr. Moore called his pupil a "restless genius". David Hume was an unconventional, fearless, irrepressible adventurer, always seeking new ideas and better ways of doing things. In moments ordinary men find dull, he found and gave inspiration. Even his Navy duty in Pearl Harbor and Bethesda was time of active learning and vital research. He spent two years as Harvey Cushing Research Fellow at Harvard while waiting his turn to be chief resident at the Peter Bent Brigham Hospital. But he never wasted his time. He forever raced against time, overfilling every day with critical study, ingenious experiments, fresh ideas and demands for better ways of treating patients. By age thirty-five he was known nationally by en-

ocrinologists and physiologists as well as by surgeons intrigued with his performance of the first functioning human transplants.

In 1955, following the death of Dr. Isaac Bigger, Dr. Hume was persuaded to become chief of surgery at the Medical College of Virginia. Local newspapers announced suspiciously that MCV had acquired a new research professor for the unprecedented annual salary of \$15,000. To many of our medical establishment suspicions seemed fulfilled when this restless genius rushed in to challenge local customs. For David Hume time was too precious to be wasted on chains of command and procedural regulations, and important customs were irresistible targets for his improvements.

While his critics complained that he would never grow up, his students reveled in his youthful and infectious enthusiasm. Patients gloried in his confidence. Largely on the strength of his powerful and provocative mind MCV became recognized as one of the most exciting medical schools in the nation. Talent poured into the faculty. Money poured into his research projects. Surgeons from around the world visited his laboratories and operating rooms. Thus he transformed an old school and wielded a powerful hand in molding a new university.

David Hume also transformed an important part of the science of surgery. His brilliance of mind was matched by his eloquence, charm and lucid style of writing. He wrote hundreds of articles and many chapters of textbooks. When he came to Richmond, organ transplantation was a remote vision shared by few other surgeons. In the space of only ten years he discovered, and proved and published techniques which made kidney transplantation the favored method of treating irreversible renal failure. Thousands of patients now treated in hundreds of cities around the world owe their lives to him. For this achievement he was honored by the American Academy of Arts and Sciences' Francis Amory Prize, the

New York Academy of Medicine's Valentine Award, Richmond Hadassah's Humanitarian Award, the University of Chicago's Distinguished Service Medal, and *Modern Medicine's* Distinguished Achievement Award for 1972.

David Hume, however, could not stand still for ceremony. He found his greatest professional reward in sharing with another man the solution to a surgical riddle and in seeing a job well done. Thus his greatest moments were spent talking to patients, teaching students, provoking research fellows and assisting young surgeons. While he transformed a medical school and an important part of clinical medicine, it is even more to his honor that he transformed the lives of hundreds of people who knew and worshipped him. Students idolized him. Residents imitate his speech, his gait, and even his custom of continuing ward rounds past midnight. His former residents meet annually in the Humera Society and demonstrate their affection and reverence with excellent scientific programs. The adoration of him by his patients is indescribable.

Last spring David Milford Hume was fifty-five years old, in his seventeenth year as chief of surgery at MCV and recognized as one of the world's leading surgeons. On the evening of May 19 while piloting his own plane a southern California mountain struck him down. Soaring high, however, are his gift of life to his patients, to his students, to MCV and to the world.

THEREFORE BE IT RESOLVED that the Richmond Academy of Medicine express its pride and gratitude for David Hume's life in our community and monumental contributions to medicine; AND BE IT FURTHER RESOLVED that we henceforth celebrate his life rather than mourn his loss, for he is clearly and firmly established as a vital force in our city, our profession and throughout the world.

WALTER LAWRENCE, JR.  
CARRINGTON WILLIAMS, JR.  
HUNTER H. MCGUIRE, JR.



### Guest Editorial . . . .

#### Records, the Law, and Strife

SENATOR SAM ERVIN of North Carolina related the anecdote of the lawyer who, when asked to offer a prayer, said: "Lord, let there be an abundance of strife among thy people, lest thy servant perish!" With the increasing number of servants, especially those working on a contingency basis, there has become a premium on *bona fide* strife. One of the greatest challenges to the source of strife and income for lawyers has been the institution of no-fault automobile insurance. One needs only to ask what happened to the \$61,000,000 in consumer savings accrued in the first year of no-fault insurance in Massachusetts and the \$100,000,000 in consumer savings declared last year in Florida to realize the magnitude of the financial losses to members of the legal profession should no-fault insurance be adopted on a national basis. I have yet to meet a lawyer who was in favor of no-fault insurance, and indeed five lawyers from Virginia, two from West Virginia, and one from North Carolina, have in open conversation admitted that should no-fault insurance be adopted in their States, they would by necessity turn their attention more to medico-legal suits. Since legislatures are largely made up of lawyers who have been or will be practitioners of law, there cannot help but be some conflict of interest resulting in impasses occurring when no-fault insurance legislation reaches the floor. In the State of West Virginia the issue was successfully deferred by the legislature for at least another year.

It should be obvious then that many lawyers are not in favor of no-fault automobile insurance, and their influence may impede its acceptance throughout the nation. It is nonetheless likely that no-fault insurance will be adopted in most States sometime in the future, at which time some members of the legal profession have indicated that they would turn their activities in the direction of medical malpractice.

In 1972 legislators, again who are largely members of the legal profession, provided lawyers with an instrument for obtaining complete medical files and records from physicians practicing in the Commonwealth of Virginia. A physician in Virginia under the authority of Rule 4:9(c), Rules of Court

effective March 1, 1972, may be summoned to produce at the offices of requesting attorneys complete medical files concerning particular clients. Consider for a moment impact of this instrument, should members of the legal profession be "forced" to redirect their financial aspirations toward medical malpractice. Therefore, it seems important for physicians in the Commonwealth of Virginia to be aware of the possible trends in medical malpractice activities in a State previously not desperately plagued by malpractice suits. A great acceleration in medical malpractice activities should be anticipated if lawyers are unsuccessful in blocking the adoption of no-fault auto insurance in Virginia. Physicians should also be aware of the instrument—Rule 4:9(c)—presently being used by lawyers to obtain information, and its possible repercussions should malpractice activities accelerate. If the application of this instrument to medical malpractice cases has not occurred to lawyers, I would seriously question their intellectual capacity. It should follow then that physicians should be extremely cautious in record-keeping and should in every instance review any material which is turned over to lawyers under the authority of Rule 4:9(c). Should there be any information contained in the records which might conceivably be interpreted as malpractice, the physician should recognize his Constitutional Right of Silence to withhold such information as he sees fit for the particular case. The outcome of the Ellsberg trial would seem to justify further faith in the value of individual rights over legal systematics.

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# Toward the Development of a Comprehensive Emergency Care System in Virginia

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**D**URING ITS MEETING on June 13, 1973, the Virginia Advisory Committee on Emergency Medical Services approved a resolution calling for the State Department of Health to "... propose legislation that would create an advisory body which would encompass the entire scope of emergency medical services and work toward the development of a comprehensive, coordinated, statewide emergency care system in the Commonwealth of Virginia ..."

At that time, a subcommittee composed of the authors of this article was appointed to develop a report that would propose *goals* of a comprehensive emergency care system, the *structure* for an expanded advisory body on emergency medical services to assist the State Department of Health in developing the system, and the *responsibilities* of both the advisory body and the State Department of Health. It was the intent of the existing Advisory Body that the subcommittee's report, if approved, would provide the basis for a legislative proposal which would be submitted to the General Assembly during its 1974 session. The subcommittee's report was considered by the existing Advisory Committee at its meeting on September 12, 1973, and approved unanimously. Presently, State Depart-

ment of Health officials together with personnel from the Attorney General's office are drafting a legislative proposal based on the report.

The purpose of this article is to present in its entirety the report that was approved by the existing Advisory Committee on Emergency Medical Services and to seek the enthusiastic support of Virginia physicians for the legislation that will be proposed in 1974. The membership of The Medical Society of Virginia has recognized the need to up-grade emergency medical services in the Commonwealth; recently, for example, the President of The Medical Society appointed a special committee on emergency medical services to study and make recommendations concerning action The Medical Society could take to stimulate cooperative efforts to improve emergency services throughout Virginia.

The following report and the legislative proposal that will be based upon it can provide the framework for great improvements in emergency medical care for all Virginians. We seek your strong support for the report and for the legislation that will follow. The report included two basic parts: "Background" and a "General Statement of Structure, Goals, and Responsibilities".

## **Report of the Subcommittee on Development of a Comprehensive Emergency Care System for the Commonwealth of Virginia**

### *Background*

According to reports from the National

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Academy of Sciences-National Research Council, the American Medical Association, the American Hospital Association, and other organizations, there are serious deficiencies in our nation's emergency care systems.<sup>1</sup> These reports indicate that large numbers of Americans are not receiving prompt, comprehensive, high-quality emergency medical care for acute illnesses and accidental injuries. The unavailability of adequate emergency medical services has often resulted in unnecessary suffering, disability, and death for persons at all levels of our society.

Today, the inadequacies of our existing emergency care systems are being recognized. Serious concern is being expressed by health professionals, public officials, and consumers across the country. This concern and growing awareness that major improvements *can* be made in our emergency care systems are creating a climate that is conducive to action—constructive, coordinated action that will lead to improved emergency medical care for all citizens.

To be effective, however, action must be carefully planned, and planning for emergency medical services must be comprehensive and cohesive. Statewide, regional, and community efforts must be closely linked to insure that plans and activities at all levels are fully coordinated and efficient. In this context, a strong and effective statewide planning function is necessary. The National Academy of Sciences-National Research Council has stated that:

*It is essential that a focal point be identified at state levels for planning of emergency medical services and for identification of the state, regional and local public and private agencies that implement emergency medical services programs . . . To assist in determinations of needs and ways of implementing programs. Emergency Medical Services Councils should be established at state, regional, and community levels [emphasis added].*<sup>2</sup>

In several states, positive action has already been taken to institute coordinated, statewide planning for the development of complete emergency care systems. Illinois,<sup>3</sup> Florida,<sup>4</sup> Wisconsin,<sup>5</sup> and, most recently, Maryland<sup>6</sup> are among the states that are making real progress in statewide planning for comprehensive emergency medical services. These plans encompass emergency transportation (ground and air), communication systems, hospital emergency departments and other emergency care facilities, consumer health information and education, manpower training (basic and continuing), legal considerations, and all other components of a complete emergency care system. Moreover, these plans and the planning process give careful consideration to the coordination of these components into an effective *system* and to the relationship between emergency care and the total health care system.

In Virginia, significant progress has been made under Chapter 16.1, Title 32, of the Code of Virginia in improving emergency ambulance services. The State Department of Health, with the advice and assistance of the existing Advisory Committee on Emergency Medical Services, has exercised strong leadership in improving emergency ambulance services in the Commonwealth. The statewide plan for emergency ambulance services<sup>7</sup> developed to meet requirements of the U.S. Department of Transportation has been cited as one of the best in the nation.

However, existing statutes do not provide the State Department of Health and its Advisory Committee on EMS with the broader mandate that is necessary to move toward the development of a comprehensive, coordinated statewide emergency care system in Virginia. Transportation services, while extremely important, are only one component of a complete emergency care system. There is a clear need, therefore, for new legislation that will strengthen the authority and responsibility of the State Department of Health and the Advisory Committee on EMS.



## **A General Statement of Structure, Goals and Responsibilities for a Re-Organized Advisory Committee on Emergency Medical Services**

In the new legislation that is ultimately drafted and proposed, the State Department of Health should be assigned the responsibility for state-wide planning and development of a comprehensive, coordinated, emergency care system in the Commonwealth. Obviously, planning at the state level must be closely articulated with planning at regional and community levels, and a primary responsibility of the State Department of Health under the new legislation should be to stimulate this type of cooperative, multi-level planning.

To advise and assist the State Department of Health to carry out its broadened responsibilities in emergency medical services, there is an important role for a re-organized Advisory Committee. This body must have a membership structure and legislative mandate that will permit it to function properly in helping the State Department of Health to move promptly toward the development of a comprehensive emergency care system. The following sections outline a membership structure, a set of goals, and a statement of responsibilities for a re-organized Advisory Committee.

*Membership Structure.* In accordance with Section 32-310.2, Chapter 16.1, Title 32 of the Code of Virginia, the existing Advisory Committee is composed of nine members appointed by the Governor to give representation to the:

- League of Virginia Counties
- Virginia Municipal League
- The Medical Society of Virginia
- Virginia Hospital Association
- Virginia Funeral Directors Association
- Virginia Association of Rescue Squads, Inc.
- American Red Cross
- Virginia State Firemen's Association

It is felt that each of these organizations has an important role in emergency medical services and should continue to be represented on a reorganized advisory committee. However,

as the American Medical Association and other organizations have recognized, broad representation from providers of health services, public agencies/organizations involved with health and safety, and community leaders is essential.<sup>8</sup> Therefore, it is urged that representation on the re-organized advisory committee also be accorded to at least the following:

- American College of Emergency Physicians
- Comprehensive Health Planning Agencies (both Statewide and local agencies)
- Commercial Ambulance Services
- Virginia Nurses' Association
- The University of Virginia, MCV-VCU, and the Eastern Virginia Medical School (the major State institutions involved in higher education for health services)
- Virginia General Assembly (to insure strong linkage between the Advisory Committee and the legislature)
- State Civil Defense Office
- The Associated Public Safety Communications Officers, Inc.
- Virginia Regional Medical Program
- MAST
- Citizens (consumers of emergency medical services)

It is expected that the total membership of the re-organized Advisory Committee will include approximately 21-26 persons because it will be desirable for certain organizations to have more than one representative. For example, because of the large and growing role of hospitals in emergency medical services, the Virginia Hospital Association should have two or more representatives on the Advisory Committee. It is essential that *all* individuals selected to serve on the Advisory Committee have a high level of interest, proven capabilities, and a dedication to improving emergency medical services for all Virginians.

*Goals.* The overall goal of a comprehensive coordinated, statewide emergency care system is to improve the delivery of emergency medical services and thereby decrease morbidity, hospitalization, disability, and mortality. This fundamental goal should provide direction for the State Department of Health and the re-

organized Advisory Committee on EMS as they strive together to move toward development of a comprehensive emergency care system in the Commonwealth.

To complement this overall goal, a set of supportive objectives should be incorporated into the proposed legislation. These broad objectives would be shared by the Department of Health and the re-organized Advisory Committee. These objectives should include at least the following:<sup>9</sup>

- (1) To *establish a comprehensive, statewide emergency care system on a regionalized basis*; this system should incorporate facilities, transportation, manpower, communication, and other components as integral parts of a unified system.
- (2) To *stimulate the development of regional and community EMS committees or councils*, which will provide coordinated planning and action designed to provide comprehensive EMS services in their areas. In achieving this (and other) objectives, the Department of Health and the Advisory Committee should work closely with comprehensive health planning agencies at state and local levels.
- (3) To *promote continuing improvement in system components* including transportation (ground and air), communications, hospital emergency departments and other emergency care facilities, consumer health information and education, health manpower and manpower training (basic and continuing), State and local statutes, and performance standards.
- (4) To *reduce the time period between identification of an acutely ill or injured patient and the point of definitive treatment* and to increase the accessibility of high-quality emergency services for all citizens in Virginia.
- (5) To *improve the quality of emergency medical care* delivered on site, in transit, and in hospital emergency departments. Concomitantly, to work with medical societies, hospitals, and other

public and private agencies to develop approaches whereby the many persons who are presently using the existing emergency departments for routine, non-urgent, primary medical care will be served more appropriately and economically.

- (6) To *promote the most progressive concepts of patient management within the hospital environment* so that the patient is not in a system of medical care which leads to the hospital but does not insure proper care within the emergency department.
- (7) To *identify legislation that is needed* to permit and stimulate the development of an effective, statewide emergency care system and to work with the Attorney General and other agencies for its prompt enactment.
- (8) To *implement standards for EMS manpower, facilities, transportation, communications, and other EMS components* in order to enhance the performance capability of the overall emergency care system. These standards may be implemented either as voluntary guidelines or as mandatory statutes depending upon situational factors.
- (9) To *conduct and/or stimulate programs of education and training* designed to up-grade the knowledge and skills of health manpower involved in EMS.
- (10) To *improve public awareness* of the strengths and deficiencies in existing emergency care system and to enlist their active cooperation in bringing about improvements which will enhance accessibility, quality and efficiency. Concomitantly, to educate the public concerning medical emergencies and the proper use of the emergency care system.
- (11) To *employ progressive techniques of planning, management, and evaluation*, which will insure that the comprehensive emergency care system is both efficient (economical) and effective in



meeting identified needs for emergency medical care in the Commonwealth. Such techniques must, of course, be utilized at the regional and community levels as well as at the State level.

- (12) To develop the organizational structure, manpower, and other resources necessary to insure that the objectives stated above are undertaken and accomplished promptly and effectively.

These broad objectives will provide direction for the State Department of Health and the re-organized Advisory Committee as they work together to improve emergency medical services in Virginia. Clearly, many specific short-range tasks must be identified and accomplished in order to achieve these objectives. For example, existing surveys of available EMS facilities and services will probably need to be up-dated in order to provide a sound basis for regionalizing the emergency care systems. The State Department of Health Staff that is organized to perform EMS functions should, as a matter of high priority, delineate the necessary tasks and develop plans to perform them.

*Responsibilities.* The proposed legislation should assign the State Department of Health the responsibility and authority to plan and establish a comprehensive coordinated emergency care system and to accomplish the broad objectives stated in the previous section of this report. The legislation should also require the Department of Health to act promptly in developing a *comprehensive and pragmatic* plan to follow in meeting these responsibilities.

The proposed legislation should assign the re-organized Advisory Committee on EMS the responsibility to advise and assist the State Department of Health in carrying out its assigned responsibilities. The Advisory Committee should serve as an action-oriented task force that will help the Department of Health and other agencies to move promptly toward establishing a comprehensive, coordinated emergency care system in the Commonwealth.

#### REFERENCES

1. The term "emergency care system" is defined

as a community, regional, or statewide network of services that provide for detection and reporting of medical emergencies, initial care at the scene, transportation and care en route to a medical facility, and care of the patient until he is discharged, referred, or admitted for definitive medical care. American Hospital Association, *Emergency Services* (Chicago: AHA, 1972), p. viii.

2. National Academy of Sciences-National Research Council, *Roles and Resources of Federal Agencies in Support of Comprehensive Emergency Medical Services* (Washington D.C.: National Academy of Sciences-National Research Council, 1972), p. 9.
3. See Illinois Department of Public Health, *The Critically-Injured Patient: Concept and the Illinois Statewide Plan for Trauma Centers* (Illinois: Illinois Department of Public Health, 1971).
4. See Florida Regional Medical Program and the Florida Department of Health and Rehabilitative Services, *Emergency Medical Services in Florida* (Florida: Florida RMP and Florida Department of Health and Rehabilitative Services, 1972).
5. See Paul C. Nutt, *A Proposal for A System of Emergency Medical Services in Wisconsin* (Wisconsin: Wisconsin RMP, Inc., 1972).
6. See Division of Emergency Medical Services, State of Maryland, *A Plan for An Emergency Medical Service Program for the State of Maryland* (Baltimore: Division of Emergency Medical Services, State of Maryland, 1973).
7. Bureau of Emergency Medical Services, State Department of Health, *Emergency Medical Services: Comprehensive Plan* (Richmond: State Department of Health, 1972).
8. American Medical Association, *Developing Emergency Medical Services: Guidelines for Community Councils* (Chicago: AMA).
9. This list of supportive objectives was adapted largely from the Wisconsin and Maryland EMS plans cited above. The list should be considered as illustrative and subject to subsequent modification and elaboration during the process of drafting the proposed legislation.

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# Emotional Problems in Asthmatic Children

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**There is a need for psychiatric intervention in childhood asthma when psychologic factors may be of etiologic or aggravating importance, when symptoms are worsened by individual or family tensions, where behavior problems have appeared in the child or the family. Treatment may be directed toward prevention of emotionally triggered attacks, modification of attitudes toward the child's symptoms, and alleviation of concurrent behavior disorders.**

**T**HE OLD CONTROVERSY between allergists and psychiatrists whether bronchial asthma should be viewed strictly as a psychosomatic disorder has greatly subsided. Psychiatrists have come to accept a multicausal etiology for asthma, which holds that hereditary, allergic, infectious, and psychologic factors independently or in combination may all assume etiologic importance in asthma. There are no longer unrealistic and uncontrolled psychiatric reports claiming that psychotherapy or psychoanalysis can cure many asthmatic patients. From the mid-thirties up until recently the debate between some allergists and psychiatrists was remindful of the old Chinese saying: "While the old Mandarin was trying to make up his mind how to describe a dog-

wood flower, the dogwood season was over." In other words, many opportunities for fruitful collaboration in treating the total medico-psychosocial picture in patients with asthma were lost due to fruitless debate about the relative importance of causative psychologic factors.

The term "psychosomatic" often has been misleading, as it tends to convey the notion that only the classical psychosomatic disorders, such as bronchial asthma and peptic ulcer, deserve to be examined from both the psychic and the somatic side, and further implies that psychic disorders have little to do with bodily functions and physical disorders seldom involve the functions of the mind of a patient. All illnesses are of psychosomatic nature; i.e., they show somatic as well as psychic manifestations and often warrant both organic and psychologic investigation.

Franz Alexander, in 1935, proposed the still widely accepted theory about the underlying mechanisms of psycho-physiologic disorders, such as some cases of asthma, postulating that chronic and exaggerated emotional arousal could give rise to profound physiologic reactions in organ systems innervated by the autonomic nervous system.<sup>1</sup> In other words, the somatic concomitants of acute anxiety, grief, or rage could lead to adverse physical consequences in an individual who was organically vulnerable due to hereditary, traumatic, allergic, and infectious factors.

Alexander and other psychiatrists also claimed that a central emotional problem in asthma was the patient's fear of separation from the mother, and that the asthmatic attack was equivalent "to an inhibited and repressed cry for the lost mother." This early claim has not been substantiated for the majority of asthmatic patients and in recent years especially pediatric psychiatrists have cautioned their

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medical and psychiatric colleagues along the following lines:

1. Psychiatrists cannot draw general conclusions about common personality variables and psychologic influences in asthmatic children, like fear of separation or rejection by mother, as our sample of patients seen in psychiatric evaluation is highly selected. The referral to the psychiatrist is often a last resort in children with severe or intractable asthma who have failed to respond to medical management; or, the asthma is coincidental in children referred because of behavior problems of all kinds. These skewed groups do not allow for a generalization of findings to all asthmatic children.<sup>2,3</sup>

2. There are no certain types of personality structure in asthmatic children, and there are no definite, consistent psychologic trauma associated with onset and attacks of asthma. Like other psychosomatic disorders, there exists no well documented, proved theory regarding psychologic factors in childhood asthma. Obviously, though, the asthmatic attacks often are emotionally traumatic events and the child's anxiety is contagious to the environment.

3. The concept of multicausality should warn us not to assign singular importance to psychologic factors in precipitating asthmatic attacks before a careful investigation of the total medical and psychosocial picture. Furthermore, when we do find clear evidence of emotional difficulties in an asthmatic child and his parents, these might be secondary to his illness and its impact on the family equilibrium.

Turning from these cautions to current views on the significance of emotional factors and problems in childhood asthma, the following four points are generally agreed upon:

1. Psychologic stress factors represent one group of stimuli that may trigger or aggravate asthmatic symptoms in children with an over-reactivity of their respiratory tract. Psychologic precipitants usually are in the form of negative affects such as anger, anxiety, depression, or of pleasurable excitement. Such emotional arousal may, via neuroendocrine and

autonomic pathways, influence the bronchial musculature and mucous secretion and initiate airway obstruction resulting in an asthmatic attack.<sup>4</sup> A central effect on immunologic mechanisms, involving the midbrain and hypothalamus, has also been suggested based upon results of animal research.

2. The asthmatic child often experiences anxiety, sadness, and irritability during an attack and occasionally fears of suffocation and dying. In addition, he has to cope with the common emotional stress factors associated with any long-term physical illness in childhood, such as frequent hospital admissions, separations from home and school environment, repeated painful and often poorly understood medical procedures, a continuous uncertainty about possible future attacks, and the interference of his asthma with schooling, family life, leisure activities, vocational training, and future family planning.<sup>5</sup>

3. The parents, especially the mother, of the asthmatic child are expected to actively assist in the medical care of their child and to master their own anxiety and at times guilty and depressed feelings about the chronic disorder. We also expect them to carry the common financial burden and to promote as normal a life as possible for their ill child, without overprotecting him and without neglecting the needs of other family members.

4. Even if the majority of asthmatic children and their families cope well with the mentioned stress factors associated with the illness, some children and parents show evidence of prolonged poor psychosocial adjustment which often seems to worsen the child's clinical condition.

What are the common emotional problems and maladaptive responses we see in these families? In terms of parents, we encounter some mothers, less frequently fathers, who understandably show fatigue, irritability, and over-anxious attitudes as their asthmatic child experiences one medical crisis after another, necessitating vigilant parental attention to his care at home, many sleepless nights, and frequent emergency trips to the hospital.

A small number of parents strike us as constantly overprotective and infantilizing toward their child, even during his periods of remission. This oversolicitous child rearing pattern often has been present before the onset of asthma. Occasionally, such parents will lose control of their frustrated feelings related to the many burdens of caring for a chronically ill child, and burst out in accusations and anger at the child, as if they rejected him because of his illness.

The asthmatic child of overprotective, constantly worried parents frequently impresses us as fearful, lacking self-confidence, being physically inactive, with little outside interests. At times, he is intellectually precocious, with a "false" heightened self-esteem, impressing outsiders as "spoiled" and his peer as no fun to be with.

Persistently rejecting, angry, impatient attitudes of mothers of asthmatic children are seen infrequently.<sup>5,6</sup> In most of these instances, a careful investigation will disclose that the rejecting attitudes antedated the onset of asthma. The child was unwanted, gross marital problems were present, the mother or the father was mentally ill, etc. The asthmatic child with rejecting, hostile parents obviously feels particularly insecure and in our experience such a child, over age six or seven, often can accurately describe the vacillating and rejecting behavior of his parents, and he will, rightly or wrongly, associate it with precipitating or worsening his asthmatic symptoms.

Another not uncommon emotional problem in childhood asthma is represented by the parental observation or accusation that the child manipulates his environment by "consciously" beginning to wheeze and breathe hard in an attempt to gain special consideration or to avoid a duty. Granted that this actually happens in some families and some asthmatic children proudly claim to possess the power of controlling their symptoms and even threaten their physician in this regard. But is this enough evidence to accept the concept of the young patient willfully inducing an attack? May it not, at least in some cases,

simply mean that the child is trying to master his anxiety about asthmatic attacks by proclaiming to be in control of their onset and course? Especially as the medical staff and the parents so often fail to prevent them? It should be emphasized, however, that the current data on modifying autonomic responses in humans, using operant conditioning techniques by which reinforcement can change heart rate and blood pressure, might be helpful in elucidating the psychologic factors in childhood asthma.<sup>7</sup> Applying learning theory, it seems plausible that subtle family interactional factors in some cases may serve as positive reinforcement of the child's learned response, asthma. This carries with it certain paradoxical gains for the child, probably also his parents. However, such a learning process, involving family reinforcement of the respiratory symptoms, does not presuppose conscious awareness of either the child or his parents.

Two case vignettes from our Medical Center illustrate the impact of asthma on young children and the role of a pediatric-psychiatric liaison team in treating emotional complications in asthmatic children and their families.

*Case 1.* Mel, an asthmatic 10 year old boy, showed vivid imagination and fears related to his condition. Emotional manifestations such as his are not uncommonly seen in asthmatic children who lack in family support and stability. Mel has suffered from non-allergic asthma since age two and required many emergency admissions due to status asthmaticus. His deprived social background, with his divorced parents continually fighting for the custody of Mel and his brother, has prompted the pediatricians to view many of Mel's asthmatic attacks as being triggered by his markedly negative feelings about having to visit his mother; he presently lives with his paternal grandmother. Mel has all the signs of a culturally disadvantaged youngster and requires remedial instruction in school. The psychotherapy sessions with Mel, which have lasted on and off for two years, confirm the allergists' impression that Mel has welcomed some hospital admissions as a relief when he is faced



with a pending visit to his mother's home, or when his grandmother has been unusually strict and threatening to him. With the therapist, Mel has recalled many memories of violent arguments and fights between his parents and of being whipped by his mother when he began to wheeze. Early in therapy, Mel expressed the idea that his mother had "put a curse on me, she probably wants me to die." He later described his persistent perception of the nature of his asthmatic condition: his mother had suffered from asthma until Mel was born and then got cured because she gave "the asthma to me." He has added, with anger, "I sure would like to give it back to her, if I see her again." Mel views his asthmatic condition as being located somewhere in his stomach region, and an operation could remove it. However, the surgeons refrain from operating, "because they are afraid of getting the asthma from me."

An additional fantasy of Mel's is that he might infect other children with his illness, "just a little bit each, to many of them, so they wouldn't get very sick." He repeatedly shows that he views himself as different, dirty, and dangerous to others, and that he blames his mother for his chronic illness. His strong fears of asthma are often expressed; e.g., "If only the doctors can keep me alive long enough, maybe I can give the asthma to someone else and get well." A common daydream of Mel's conveys his fear of suffocation and his attempts to master it by magic: he is pretending to be dead, doesn't breathe, and is put in a casket. At the undertaker's house he suddenly raises the lid of the casket and scares everyone away, as they think Mel is a living ghost.

Mel's psychotherapy has relieved him of some of these frightening associations to his asthma, and also stabilized his social situation. Clinically, he only suffers occasional mild attacks of wheezing as long as his grandmother regularly brings him to therapy and accepts counselling regarding her role as his caretaker.

*Case 2.* Mary; now seven years old, developed asthma around age one. During the past

two years she has had 12 hospital admissions, some of them requiring respirator treatment in the I.C.U. Desensitization and steroid treatment started at an early age. Currently, Mary's asthma is viewed as non-allergic, with marked emotional components. During the past three years, her parents have become increasingly frustrated and angry about their "miserable life" because of Mary's life-threatening, frequent attacks. They complain about extensive medical bills, not being able to leave their home or go on vacation, and the "gloomy" influence of Mary on their two other children. The mother spoke about spanking Mary when she was uncooperative and whining, and added, "But I get punished, because she gets an attack and we have to rush to the hospital." Both parents often have accused Mary of bringing on attacks in an attempt to get her own way.

Last fall our hospital staff noticed that Mary responded well to firm limits and rule setting on the ward, and that her testing, provocative tendencies presented little problem except when the parents visited. Around them she behaved like a whiny toddler. The history-taking revealed several important psychosocial factors: Mary did not speak in single words until age three, in sentences at age four. She had frequent temper tantrums and breath-holding spells from age three, lasting for about a year. Her asthma became more severe after the birth of her brother at age five. No attacks have ever occurred in school and she is liked by her teachers and classmates. Mary's father suffers from non-allergic asthma and is severely overweight. He is a domineering, resentful person, who occasionally gets very angry at our staff, criticizing the treatment approach with Mary. His states of anger at times seem to trigger asthmatic attacks during which he gasps, coughs, and wheezes, yet continues to talk and criticize.

After a thorough medical and psychosocial evaluation last fall, the parents reluctantly accepted our joint recommendation to place Mary in a foster home in Charlottesville, while she received continued medical and psychiatric outpatient care at our hospital. The parents

also agreed to counselling at their local mental health clinic. The psychiatric evaluation showed Mary to be of average intelligence. She poured out painful, emotional material on projective testing and told stories about children being hated by their parents, wanting to escape or to die, and also feeling bad and unsafe. She alluded to all the inconveniences her illness had caused her family.

Mary has been seen in weekly psychotherapy for the past eight months. Her initial sad, non-verbal, and cautious behavior in the playroom has changed to one of often animated interaction with her psychiatrist, ordering her around, and engaging in aggressive games with the toy material. Mary used the therapy sessions to work through some of her fears and reluctance to visit her home for the first time after two months of steady medical and foster home progress. "The road home is very dangerous", she staged in the sandbox, with cars being blown up. Further play sessions have helped her to express in words her views of her parents as removed, stern disciplinarians, who never play with their children. The therapist has all along provided Mary with words for important feeling states shown in the playroom, such as, "angry, sad, scared, loving, jealous".

Along with her clinical improvement, Mary has begun to relate warmly with her unusually competent foster mother who has noted how happy Mary is when allowed to play outdoors, "even in the mud"—getting dirty; how competitive Mary is, and how angry she becomes when she cannot keep up with her playmates. Most of her wheezing episodes in the past eight months have been mild and related to physical exertion. Many of them have responded to gentle cuddling and talk by the foster mother.

The parents, still concerned about "losing" Mary if she does much better away from home, have become more cooperative and pleased about Mary's uneventful visits home. They feel more confident in handling her at home, and have also confided in their counselor many years of marital disharmony.

Our comprehensive medical, psychiatric, and

social efforts to rehabilitate Mary and her family have only begun. The staff involvement required in a case like hers is extensive. Yet, this appeared the only viable alternative to referring her to a remote residential treatment center, which her parents refused to consider. Whatever the allergic and other organic etiologic factors were in Mary's case, her later years of steady deterioration seemed to be related to a pathologic home situation. Her parents' increasing sense of frustration, helplessness, and anger led them at times to withdraw from her and to punish and criticize her. Gradually Mary became aware of these attitudes which deeply frightened her. She tried to cope with her distress by resorting to nagging, manipulating, and clinging behavior. The temporary foster home placement, where Mary is treated as a normal child, has provided her with considerable physical and emotional freedom. The supportive psychotherapy has increased her awareness of normal negative and positive feelings and the complexities of family interaction.

### Discussion

The cases of Mel and Mary illustrate some main principles of psychiatric intervention in situations of severe childhood asthma and secondary prolonged family maladjustment.<sup>4</sup> The rather traditional psychotherapy sessions allow the children to vent feelings, memories, and fantasies associated with their chronic illness and disturbed family equilibrium. In Mary's case, the temporary foster home placement provides a necessary reduction of family tension and direct counselling of the parents—a relaxed "breathing spell" for her whole family. Simultaneously, Mary has ample opportunities to become socially active with peers and to gain physical strength, social and academic skills, and increased self-assurance as a normal young person with a controllable physical ailment.<sup>5</sup> Mary's foster mother has been employing a form of relaxation training when she gently holds and talks to Mary as she experiences the onset of an asthmatic attack after physical exertion—usually the wheezing subsides.



No psychosocial treatment technique with asthmatic children can claim superior results.<sup>3,4</sup> A possible exception might be residential treatment for those children whose respiratory symptoms are resistant to all medical and psychologic procedures in their home environment.<sup>7</sup> These are situations where family tension markedly aggravates the asthmatic condition and is not amenable to the usual therapeutic measures, such as individual and parent therapy, group psychotherapy, and behavior therapy. The results of the use of sedatives and tranquilizers in an attempt to reduce anxiety levels in asthmatic children are equivocal. In addition, their potential danger in terms of depressing respiratory function and bronchial reflexes explains why they find little use in most centers for asthmatic children. Chloral hydrate remains the safest drug when sedation is necessary.

There are two well-known essential factors for the successful modification of childhood asthma: an optimal team relationship between the pediatrician or allergist and the psychiatric therapist, with constant communication regarding the child's physical and psychosocial condition; and the establishment of a good working relationship with the parents or parental substitutes of the child—they are crucial therapeutic allies. Family treatment of asthmatic children holds much promise for the future, as it can alleviate family conflicts that may precipitate or aggravate asthmatic symptoms of a child, and also promote improved family adaptation to the long-term childhood disorder.

### Summary

In conclusion, child psychiatry has a selective role in the treatment of asthmatic children. Referral for psychosocial evaluation of a family with an asthmatic child, with a consideration of psychiatric treatment, seems indicated in the following situations: (1) Children with non-allergic, non-infectious asthma where psychologic factors are likely to be of etiologic and/or aggravating importance; (2) Any asthmatic child whose symptoms appear to be repeatedly worsened by individual or fam-

ily tension, or whose chronic disorder has caused secondary behavior problems or maladaptive family patterns; (3) Behavioral problems seemingly unrelated to the child's asthmatic illness. Psychiatric intervention in childhood asthma may be oriented toward prevention of emotionally triggered attacks, modification of the child's and the parents' attitudes toward his symptoms, and alleviation of a concurrent behavior disorder. Frequently, all three directions are pursued. Careful evaluations of the effectiveness of various psychologic approaches to the modification of childhood asthma are sorely needed. The clinical material for such studies will remain ample—alas, "the dogwood season" will ever recur.

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*Acknowledgment.* Gretchen Kelly, Janet Lee, and Kenneth Naylor served as therapists for the cases cited.

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# Tobramycin in the Neonatal Period

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**The clinical pharmacology of tobramycin was studied in 15 newborn infants. Tobramycin was found to be effective in vitro against most gram negative organisms encountered in neonatal infections. Specific recommendations and precautions are outlined for treating selected neonates with tobramycin.**

**A**N EVALUATION of tobramycin in the newborn was undertaken during the first six months of 1972. This drug is a new member of the aminoglycoside family which includes gentamicin, kanamycin, streptomycin, neomycin, and paromomycin.<sup>1</sup> These antimicrobial agents have a number of pharmacologic properties in common: bactericidal action, poor absorption from the gastrointestinal tract, excretion by glomerular filtration, relatively low serum protein binding, and potential renal toxicity and ototoxicity.<sup>2</sup> In vitro data indicated that the common pathogens such as *Staphylococcus*, *Escherichia*, *Pseudomonas*, and other gram negative organisms are highly susceptible to tobramycin.<sup>3</sup> Because of these facts, the clinical pharmacologic activity of

tobramycin was evaluated in 15 newborn infants who had suspect sepsis, sepsis or meningitis. Bacterial susceptibility and basic data concerned with dosage, levels, and accumulation of tobramycin in sera and cerebral spinal fluid (CSF) are reported in this communication.

## Materials and Methods

*Antimicrobial susceptibility studies.* Organisms obtained from clinical material including blood, urine, and respiratory specimens were tested for their susceptibility by both the disc diffusion and tube dilution techniques for the minimum inhibitory concentration levels (MIC) and minimum bactericidal levels (MBC). In both procedures, organisms of known susceptibility were included as controls in order to test for the reproducibility of results. The disc diffusion technique was a modification of the World Health Organization procedure.<sup>6</sup> The tube dilution method was performed as outlined by Anderson.<sup>1</sup>

The assay method used for tobramycin serum and spinal fluid levels was that of Winters, Litwack, and Hewitt, with the substitution of tobramycin for gentamicin.<sup>5</sup> The test organism was *Bacillus glabrigi*.

Sera from infants receiving penicillin in addition to tobramycin were treated with 80,000 units of penicillinase to inactivate penicillin. Controls indicated that the tobramycin assay technique was not altered by the addition of penicillinase to the test sera. All blood samples for study were collected by needle aspiration. Sera were separated and then stored at -70°C. until assayed.

*Serum half-life determinations.* The half-life of tobramycin in serum was approximated by plotting the serum tobramycin level for

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each infant against time (hours after administration) on graph paper. The time at which the serum tobramycin level was 50% of the peak level was taken as the serum half-life.

**Patients.** Fifteen infants who were diagnosed at birth as having suspect sepsis, sepsis or neonatal meningitis were selected for the study from the Medical College of Virginia nursery. Infants suspected of having infection were those with abnormal temperatures, unexplained change in feeding pattern, failure to thrive, and infants born of mothers with clinical amnionitis. These patients were treated with tobramycin and penicillin until cultures were reported as negative, clinical cure was evident or culture results indicated another antibiotic was preferable. Informed parental consent was obtained in all cases.

All infants receiving tobramycin were evaluated daily during therapy with regard to their clinical conditions and laboratory results. Tobramycin was continued if the pathogen was susceptible in vitro and the clinical response satisfactory. All infants receiving tobramycin were carefully followed for evidence of renal, hematologic, and hepatic toxicity. A complete blood cell count, urinalysis, blood urea nitrogen (BUN), blood glucose, calcium, phosphate, uric acid, total protein, cholesterol, albumin, bilirubin, liver enzymes (LDH, SGOT, alkaline phosphatase) were performed prior to and at the conclusion of therapy.

CSF was obtained prior to therapy for diagnostic purposes and midway between the fourth and fifth doses of tobramycin (28 hours after the start of therapy) for drug level evaluation. It was stored at  $-70^{\circ}\text{C}$ . until assayed.

Results

**Serum tobramycin assays.** Serum for assay of antimicrobial activity was obtained from 15 infants at one and eight hours after intramuscular administration of 1.3 mgm/kg. of tobramycin which was repeated every eight hours. At 80 hours after onset of therapy another serum specimen was obtained; this sample being collected eight hours after the

previous intramuscular dose of 1.3 mgm/kg. Fig. 1 illustrates the tobramycin levels at one hour (mean 2.24  $\mu\text{gm/ml.}$ ) and at eight hours (mean 0.96  $\mu\text{gm/ml.}$ ) with the highest level occurring at one hour with a continual fall to the eight hour level. The tobramycin levels obtained at eight hours (mean 0.96  $\mu\text{gm/ml.}$ ) and at 80 hours (mean 1.1  $\mu\text{gm/ml.}$ ) are

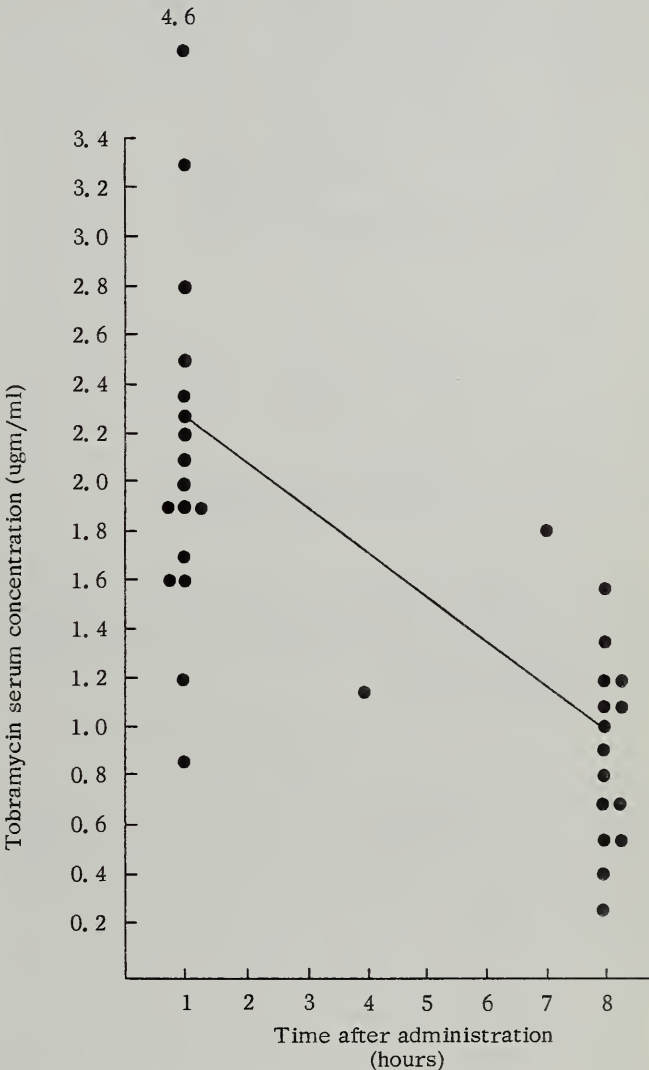


Fig. 1. Tobramycin serum concentration versus time.

shown in Fig. 2 indicating that there was no accumulation of tobramycin with long-term therapy.

**Half-life of tobramycin in serum.** The approximate half-life values of tobramycin for various infant groups are shown in Table II. The length of activity was directly related to birth weight of the infants with a half-life of greater than eight hours for the 1,500-2,000 Gm. infant compared with a half-life of six and a half hours for the 3,000-3,500 Gm. in-

fant. The activity of the 2,000-2,500 and 2,500-3,000 Gm. infants fell between the previous value with a half-life of about eight hours for each group (eight hours and seven

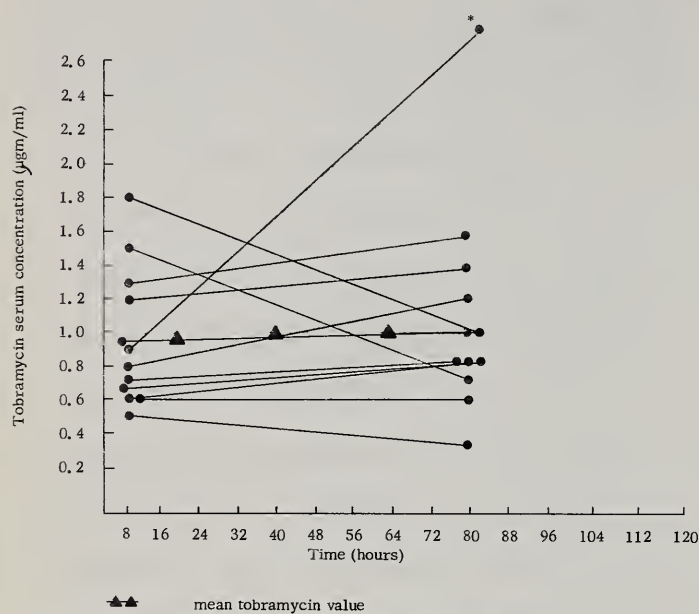


Fig. 2. Tobramycin serum concentration versus time into therapy. (Serum sample taken immediately prior to tobramycin administration)

and two-fifths hours, respectively). All of these infants were treated in the immediate postpartum period.

Table I. Relationship of infant weight to tobramycin levels\*

Infant weight in Gms.	Serum tobramycin $\mu\text{gm/ml}$		Serum half-life in hrs.	CSF tobramycin $\mu\text{gm/ml}$ .
	1 hr.	8 hr.		
2,021	2.2	1.8	17-1/2	1.2
3,550	1.9	0.9	7-3/4	0
3,560	1.6	0.3	5-1/2	0.6
3,590	1.9	0.6	6-3/4	0
2,590	1.6	0.8	8	0
1,500	2.3	1.1	6	-
3,680	3.3	0.6	5-1/4	-
3,542	1.2	0.5	7	0
1,771	1.4	0.7	7-1/4	1.5
2,825	2.1	0.7	6-1/2	0
1,700	1.7	1.2	13	0.5
2,320	2.5	1.2	8	1.2
2,956	2.8	6.9	5-1/2	0
2,930	4.6	1.5	6	0
2,900	2.0	1.3	11	0.7

\*Interval between injections was 8 hours.

*Accumulation of tobramycin in serum.* To study accumulation of tobramycin in neonates,

serum levels were obtained at eight and at 80 hours during therapy. These times represent periods just prior to the administration of the next dose due the patient in the course of his therapy. The mean serum level at eight hours of therapy was  $0.9 \mu\text{gm/ml}$ . with a range of  $0.5\text{-}1.8 \mu\text{gm/ml}$ . At 80 hours the level was  $1.1 \mu\text{gm/ml}$ . with a range of  $0.3\text{-}1.6 \mu\text{gm/ml}$ . One patient had an eight hour value of  $0.9 \mu\text{gm/ml}$ . and an 80 hour value of  $2.6 \mu\text{gm/ml}$ . This was a 3,550 Gm. infant and had an  $0.2 \mu\text{gm/ml}$ . level 24 hours after termination of therapy. It is probable, but could not be definitely determined, that the child received his 80 hour tobramycin dose prior to the drawing of this serum sample. His serum half-life was seven and three-quarter hours.

*CSF tobramycin levels.* A CSF sample was obtained 28 hours after the start of therapy with tobramycin. This time represented a point midway between the fourth and fifth doses (four hours after the fourth dose and four hours before the fifth dose). Only infants weighing 2,500 Gms. or less and who had a serum half-life of greater than eight hours had measurable tobramycin levels in the CSF. Only two of ten infants of greater than 2,500 Gms. had detectable levels of tobramycin in the CSF (Table I).

Table II. Infant weight groups in relation to tobramycin levels

Number of infants	Infant weights in Gms.	Serum tobramycin		CSF tobramycin $\mu\text{gm/ml}$	Half-life tobramycin hrs.
		1 hr. $\mu\text{gm/ml}$	8 hrs. $\mu\text{gm/ml}$		
4	1,500-2,000	2.0	1.2	1.1	11.5
1	2,000-2,500	2.5	1.2	1.2	8
5	2,500-3,000	2.6	1.0	0.1	7-2/5
5	3,000-3,500	2.0	0.6	0.1	6.5

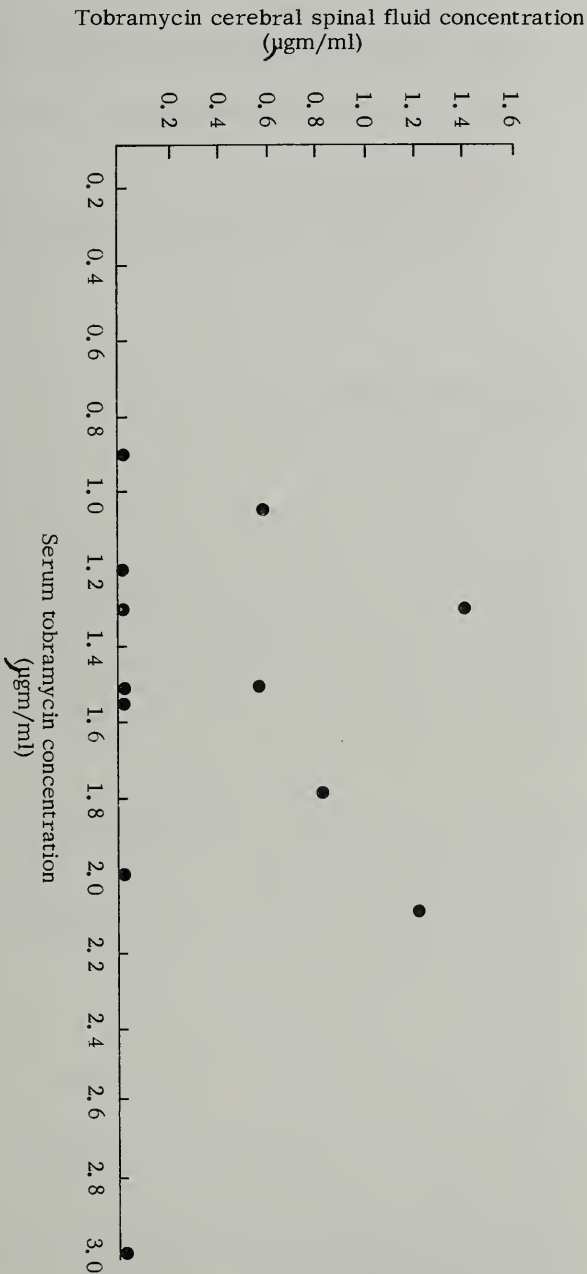
There was no correlation between serum and CSF levels of tobramycin as shown in Fig. 3. However, there was a positive correlation between serum half-life and CSF tobramycin level measured at 20 hours.

*In vitro susceptibility studies.* The MIC and MBC for the common gram negative bacteria associated with sepsis are shown in Table III.



The majority of strains had an MBC value that was the same as the MIC. Most of the *Pseudomonas* strains were susceptible to levels that were readily achievable in serum as demonstrated in the previous tables. Only one of the 10 *Pseudomonas* strains tested had an MBC greater than 100  $\mu\text{gm/ml}$ . This organism was the most resistant of all of the bacteria tested.

Fig. 3. Tobramycin cerebral spinal fluid concentration versus serum tobramycin concentration at 4 hours after tobramycin administration



**Toxicity evaluation of tobramycin.** All infants had hemoglobin, hematocrit, WBC, differential, urinalysis, calcium, phosphorus, uric acid, total protein, albumin, total bilirubin, alkaline phosphatase, LDH, SGOT, BUN before, during and after therapy. There were no abnormal values that could be attributed to medication.

## Discussion

The present study demonstrates that tobramycin has the following properties: in vitro inhibition of many of the organisms encountered in neonatal infections (bactericidal action), a safe parenteral route of administration

Table III. In vitro susceptibility of common gram negative bacteria to tobramycin

Species	Number of strains tested	MIC $\mu\text{gm/ml}$	Number of strains tested	MBC $\mu\text{gm/ml}$
<i>Pseudomonas</i>	1	0.19	1	0.19
<i>Pseudomonas</i>	2	0.39	2	0.78
<i>Pseudomonas</i>	2	0.39	2	1.56
<i>Pseudomonas</i>	2	0.78	2	1.56
<i>Pseudomonas</i>	1	0.78	1	3.12
<i>Pseudomonas</i>	1	0.78	1	6.25
<i>Pseudomonas</i>	1	0.78	1	> 100.00
<i>Escherichia</i>	1	0.78	1	0.78
<i>Escherichia</i>	2	1.56	2	1.56
<i>Escherichia</i>	2	3.12	2	6.25
<i>Citrobacter</i>	1	1.56	1	1.56
<i>Klebsiella</i>	1	0.78	1	0.78
<i>Klebsiella</i>	3	1.56	3	1.56
<i>Klebsiella</i>	1	3.12	1	3.12
<i>Enterobacter</i>	2	1.56	2	1.56
<i>Proteus mirabilis</i>	1	3.12	1	3.12
<i>Salmonella</i>	1	6.25	1	6.25

MIC=Minimum inhibitory concentration  
MBC=Minimum bactericidal concentration

which produces suitable serum antibacterial levels, lack of accumulation in serum with multiple doses, access to the central nervous system in less than 2,500 Gm. infants, lack of detectable levels of tobramycin in the 2,500 Gm. or greater infants and freedom from acute adverse effects. However, there are no long-term follow-up studies of renal toxicity or ototoxicity.

Gentamicin or tobramycin in combination with carbenicillin can be recommended for the treatment of neonatal infections caused by *Pseudomonas* species. If tobramycin is to be used in the neonatal period, certain precautions should be observed:

1. Until data are available on larger dosage schedules, 1.3 mgm/kg./dose should be administered intramuscularly every eight hours. This dose has been derived for infants with normal renal function.

2. Bacterial susceptibility studies should be performed on the causative organism and the pathogen should be sensitive to tobramycin at an MIC level of 1.0  $\mu$ gm/ml. or less. In meningitis, if the birth weight is greater than 2,500 Gms., intrathecal tobramycin should be considered.

3. Appropriate laboratory studies should be obtained to detect hematologic, renal, or hepatic toxicity. If possible, auditory and vestibular function should be assessed several months later.

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### When Earth's Last Patient Is Treated

When earth's last patient is treated and the ink  
in the appointment book has dried  
And the lights in the waiting room are dark-  
ened and the insurance forms are all laid  
aside  
We shall rest and faith we shall need it, lie  
down for an aeon or two  
Till the Chief of all good physicians shall call  
us to work anew.  
And those that were good shall be happy and  
they shall work at hospitals of gold  
And their stethoscopes will sparkle with jewels  
and instruments of pure silver we shall hold.

We will have angels as nurses and will be free  
from emergency call  
And shall work for an age at a sitting and never  
grow tired at all.  
The Master Himself shall be Chief, His only  
to praise or to blame  
And no one shall work for money and no one  
shall work for fame  
But all for the joy of working and each in that  
time afar  
Shall treat his patient as he sees fit for the God  
of things as they are.

—Anonymous

*Parody on Earth's Last Picture as painted by  
Kipling*



# Pleural Plasmacytoma

## Presenting as Pleural Effusion

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**The case report presented is believed to be only the second reported instance of pleural effusion due to multiple myeloma.**

**A**UTOPSY STUDIES of multiple myeloma have revealed extraosseous involvement in 70% of cases. The spleen, lymph nodes, liver and kidney are most frequently involved in that order. We report here a case in which pleural involvement without obvious contiguous rib lesions presented with pleural effusion. To our knowledge this is but the second instance described in the literature of pleural effusion due to a pleural plasmacytoma.

### Case Report

G.G., a 78-year-old black male, was first admitted to the Medical Service of the Veterans Administration Hospital, Richmond, on 1/25/62. His chief complaint was the sudden onset of a sharp, knife-like pain in his right hip prior to admission. Physical examination revealed only slight limitation of motion and pain and tenderness over the right hip. Laboratory data revealed a hemoglobin of 9.2 g/100 ml. White blood cell count was 16,800 with 80% polys, 13% lymphs, 4% monocytes and 3% eosinophils. The BUN was 16 mg/100 ml. The serum globulins were 4 g/100 ml and the albumin 3.6 g/100 ml. A serum protein electrophoresis revealed slightly in-

creased gamma globulin and an otherwise normal pattern. Bone marrow examination showed active erythropoiesis and a marked increase in plasma cells, many of which were irregular, and the possibility of a myeloma was suggested. A bone survey was unremarkable. The hospital course consisted mainly of penicillin treatment of a hospital acquired "gram-positive" pneumonia. The patient was discharged on 2/23/62 with a diagnosis of possible multiple myeloma. There were no discharge medications.

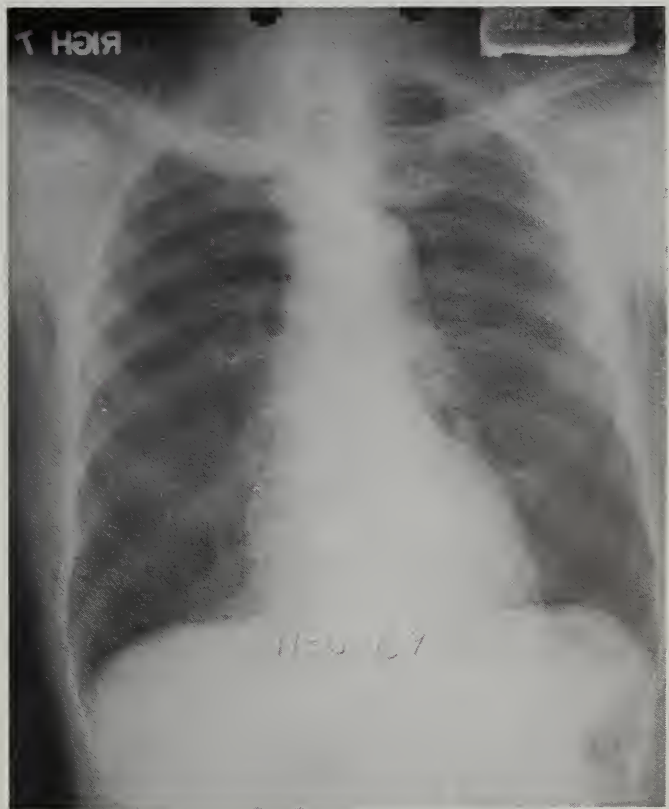


Fig. 1. Chest x-ray showing right apical density.

His next admission was on 11/5/69. The patient had experienced pain in the posterior neck from August 1969. He saw his private physician and a chest roentgenogram revealed a ground-glass density (Fig. 1) in the right

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apex. He was subsequently admitted with a tentative diagnosis of bronchogenic carcinoma. Physical examination revealed marked decrease in the range of motion of the neck with pain. There were no other significant physical findings. Laboratory studies revealed a hemoglobin of 10.6 g/100 ml; BUN was 16 mg/100 ml. Serum calcium and alkaline phosphatase levels were normal. The serum protein electrophoresis showed total globulins of 4.9 g/100 ml with a gamma component of 31.5% (the upper limit of normal is 25%). The urine was negative for Bence-Jones protein. A serum immunoglobulin electrophoresis showed IgA of 1381 mg/100 ml (normal, 200 mg/100 ml  $\pm$  61) and precipitation bands with characteristic appearances of monoclonal gammopathies in the IgA and kappa light chain regions. A chest roentgenogram showed bone destruction of the right second and seventh ribs with a diffuse haziness in the right apex (Fig. 2).

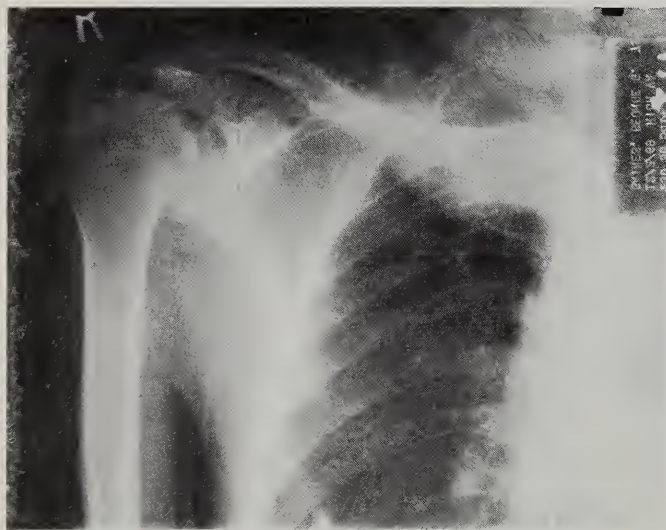


Fig. 2. X-ray showing absence of posterior portions of right 2nd and 7th ribs.

There was an osteolytic defect in the body of C-2 and destruction of the right pedicle of that vertebral body. There were osteolytic defects involving the left pubic bone and the right scapula. A needle aspiration of one of the rib lesions showed plasma cells. A bone marrow examination revealed 7% plasma cells. Accordingly, a diagnosis of IgA-kappa myeloma was made and the patient was treated with radiation therapy to the cervical spine and right posterior chest, receiving a total

tumor dose of 3,000 rads. The patient was discharged improved on 1/13/70, to be followed regularly in the hematology clinic.

The patient's third admission was 12/31/70 with complaints of left hip and lumbosacral spine pain. He had been started on Melphalan 2 mg/100 ml daily on 4/2/70. His hemoglobin was 10.2 gm/100 ml. A destructive lesion of the body of the third lumbar vertebra was found. He received 3,600 rads to this area. Because of thrombocytopenia, Melphalan was discontinued and the patient was switched to Cyclophosphamide 100 mg daily, which he continued to take after discharge.

The patient's final admission was on 1/8/72, with complaints of shortness of breath and ankle swelling of three weeks duration. He had been unable to sleep except in the sitting position. There was no history of fever, chills, or hemoptysis. Physical examination at admission revealed marked enlargement of the left

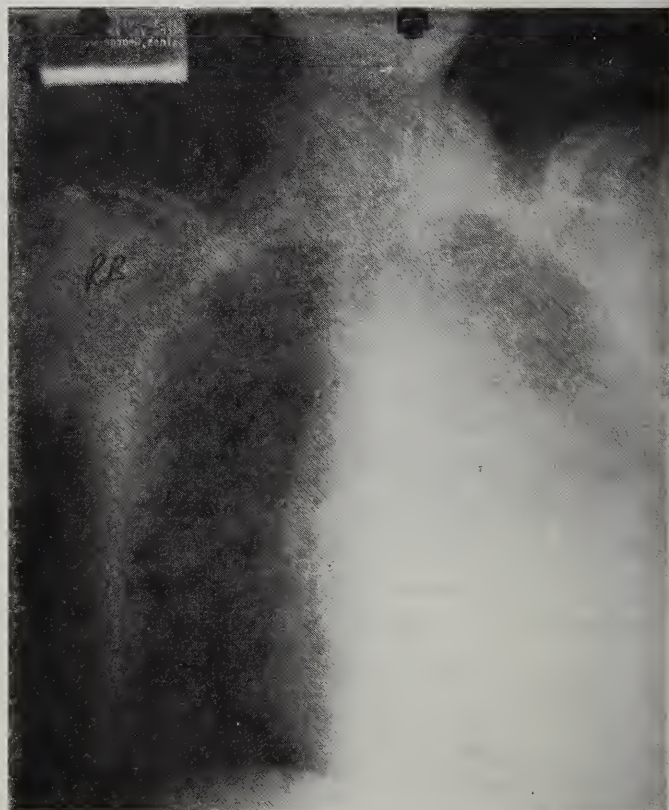


Fig. 3. Chest x-ray showing large left pleural effusion.

chest anteriorly, without the presence of any discrete masses. There was dullness to percussion with decreased breath sounds over the lower two-thirds of the left hemithorax. The liver was percussed 3-4 cm below the right



costal margin, but a definite edge was not palpable.

out any bone lesions apparent (Fig. 3). A 5 tuberculin unit skin test was negative.

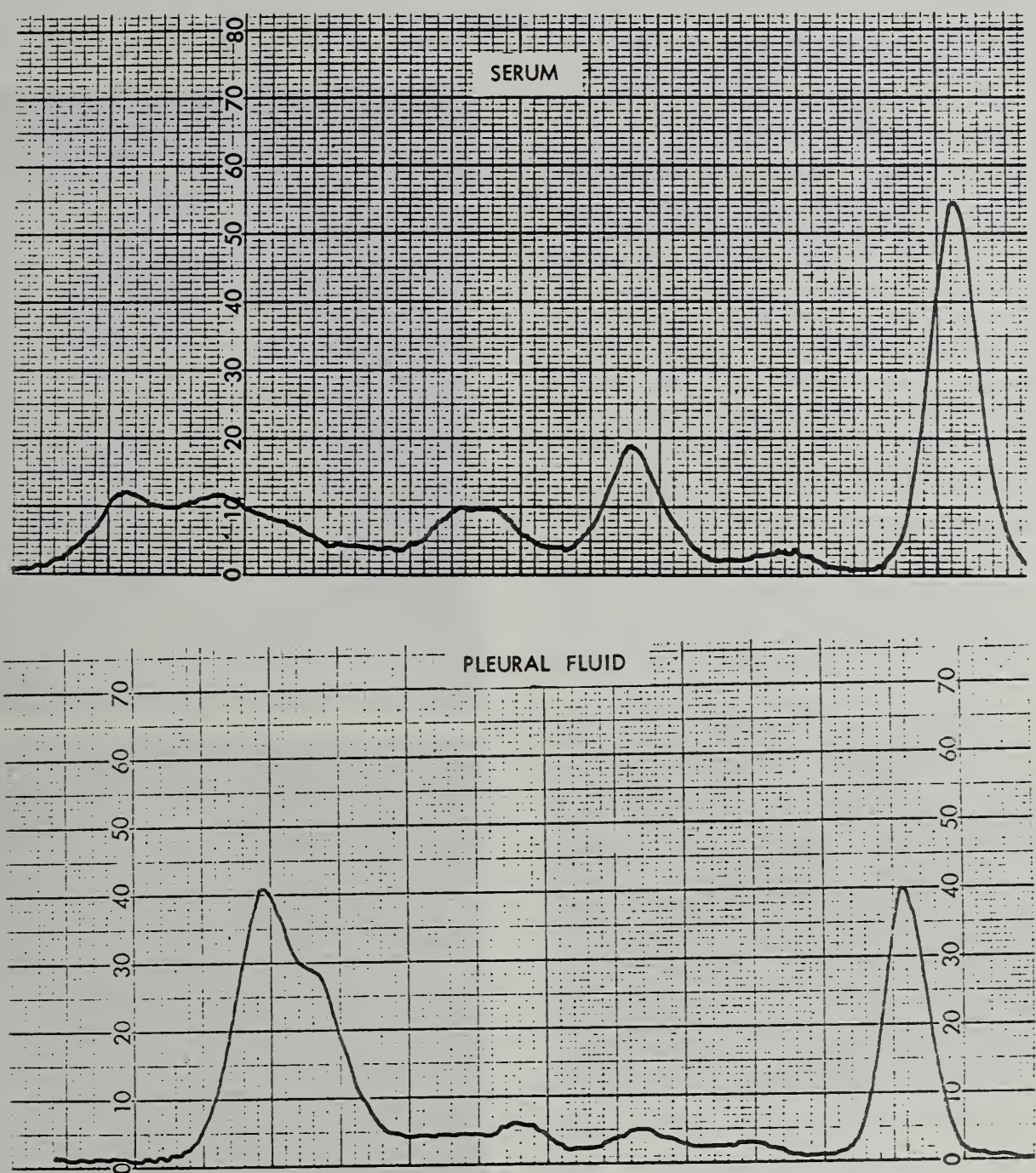


Fig. 4. Pleural fluid and serum protein electrophoreses showing marked monoclonal spike in pleural fluid not present in serum.

Initial laboratory data revealed a hemoglobin of 6.7 g/100 ml. The red cells demonstrated Rouleaux formation. Both macrocytic and microcytic red cells with bizarre forms were present. White cell count was 4,600 with 68% polys, 18% lymphs, 10% monocytes, and 4% eosinophils. Platelet count was 109,000. Blood urea nitrogen was 13 mg/100 ml and serum calcium was 9.7 mEq/L. A chest film revealed a large left pleural effusion with-

Thoracentesis was carried out four times during this hospitalization. Results of these procedures are shown in Table 1. Because of

TABLE 1 PLEURAL FLUID					
Dates	Red Cell Count (/cc <sup>3</sup> )	White Cell Count		Protein (gm/100 ml)	Sugar (mg/100 ml)
		Total (/cc <sup>3</sup> )	Polys Lymphs		
1/ 8/72	200,000	2,100	100%	7.1	94
1/14/72	40,000	3,700	60% 40%	7.7	127
1/20/72	500	950		6.8	
1/28/72		2,550	80% 20%	4.8	180



the exceptionally high protein on the initial specimen, protein electrophoresis was obtained on the second pleural fluid sample. As seen in Figure 4 there was a marked gamma spike not present in the serum. A pleural biopsy obtained at the time of the second thoracentesis revealed only chronic pleuritis. On 1/20/72 simultaneous samples of serum and pleural fluid were sent for immunoglobulin electrophoresis. The pleural fluid contained 1050 mg/100 ml IgA (normal  $202 \pm 83$ ) and the precipitin crescents indicated an IgA-kappa monoclonal protein with an abnormal crescent in the lambda light chain pattern. The serum study revealed normal concentrations of immunoglobulins, however the precipitin pattern was reported as "unusual" for IgA and the lambda and kappa light chains. Pleural fluid cell block done on 1/20/72 showed many bizarre cells which were initially interpreted as blast cells but later were felt to be very active plasma cells (Fig. 5). All bacterial, fungal, and tuber-

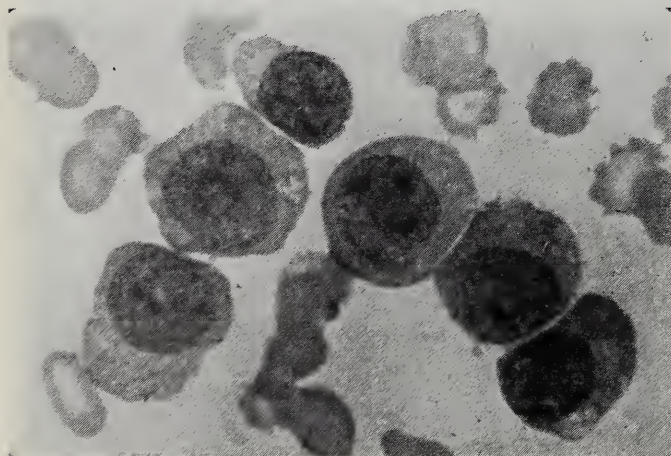


Fig. 5. Pleural fluid cytology revealing large bizarre cells.

culous cultures of the pleural fluid were negative.

Radiographically there was never any evidence of bone lesions during this final hospitalization. The previously affected ribs and vertebrae appeared normal. On the post-thoracentesis film of 1/13/72 there was a density behind the left anterior chest wall (Fig. 6). This was felt to represent either a plasmacytoma or a loculated area of pleural fluid. Subsequent films showed a decrease in size of this shadow (Fig. 7).

The patient's hospital course was marked by pulmonary infection. On the third hospital day, Cyclophosphamide was discontinued, and Melphalan and Prednisone were begun.

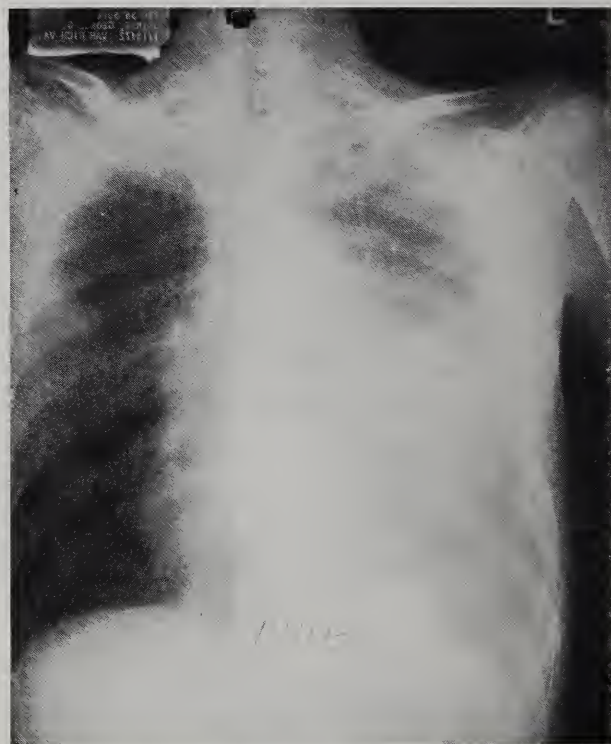


Fig. 6. PA and lateral chest x-ray showing a rounded density just behind the anterior ribs and persistent pleural effusion.

Isoniazid was also given because of the pleural effusion, question of energy and steroid therapy. From 1/22/72 to 1/29/72



he was treated with ampicillin for fever and productive cough with the isolation of both *H. influenza* and *D. pneumoniae* from the sputum. He did well until 2/6/72 when he

itive for *D. pneumoniae*. Permission for autopsy was not granted.

## Discussion

While pulmonary involvement during the course of multiple myeloma is uncommon, pleural invasion is rare. Hayes et al. in 1952 reviewed 182 cases of multiple myeloma with extraosseous involvement.<sup>1</sup> In the literature there were 433 specific instances of organ involvement of which 20 were pulmonary and only four pleural. They added 38 cases of myeloma autopsied at the Mayo Clinic in which 53 soft tissue lesions were found, only one of which was pleural. In 1965 Herskovic et al., also reporting from the Mayo Clinic, cited only 33 previously reported cases of intrathoracic plasmacytoma from 1911 to 1960.<sup>2</sup> They reported on 21 cases of intrathoracic involvement among a total of 303 patients seen at the Mayo Clinic with multiple myeloma over a five year period. In no case described was there an associated pleural effusion.

Gabriel reported a single case of multiple myeloma presenting as pleural involvement over a three year period, and terminally developing a large pleural effusion.<sup>3</sup> On protein electrophoresis the concentration of myeloma protein in the pleural exceeded that in the serum.

We believe the present case to be only the second reported instance of pleural effusion due to multiple myeloma. As in the case of Gabriel, the concentration of myeloma protein in the pleural fluid was much greater than in the serum and there were no obvious adjacent bone lesions. This we feel unequivocally establishes the effusion as secondary to direct invasion of the pleura by plasma cells, rather than as an effusion due to some other process merely mirroring the serum proteins. Despite the lack of autopsy confirmation, the presence of the bizarre cells in the pleural fluid, which we feel are plasma cells, supports this contention.

We feel that when pleural effusion occurs during the course of multiple myeloma that

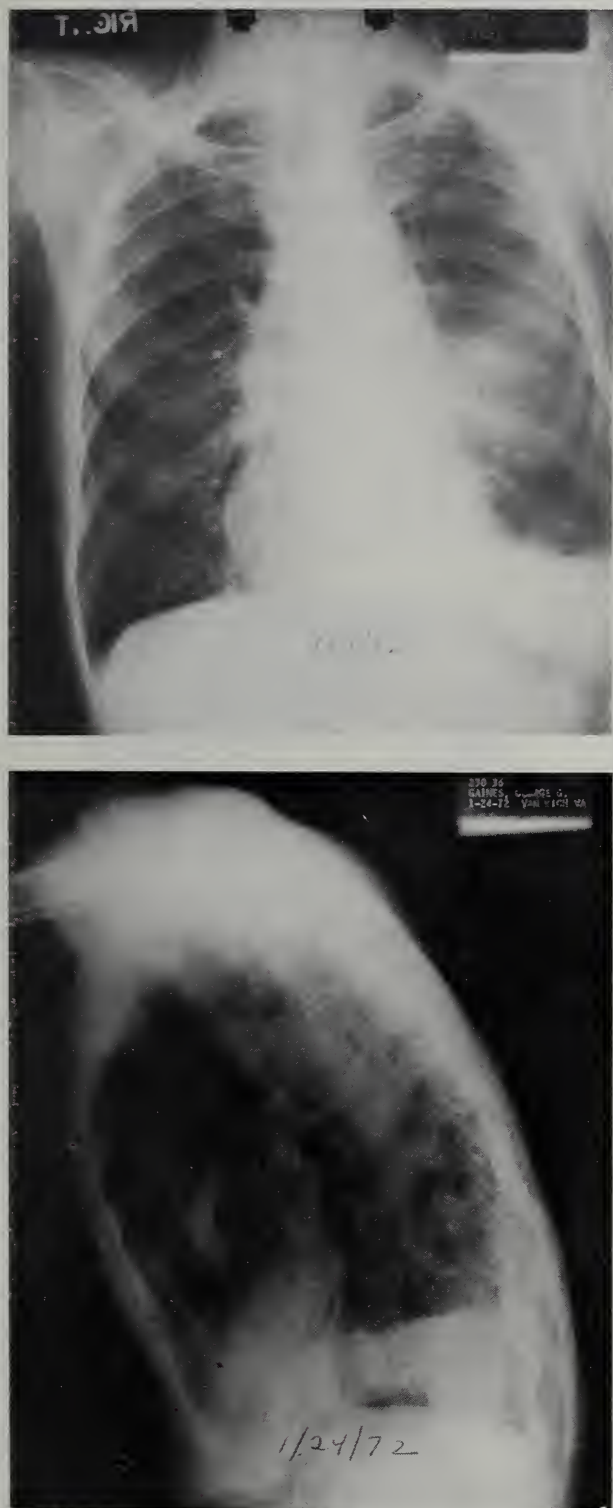


Fig. 7. PA and lateral chest x-rays show clearing of density anteriorly and of pleural fluid.

again developed spiking fever and cough. At this time leukopenia of 1,900 wbc occurred. Despite intensive treatment he died on 2/13/72. Both blood and sputum cultures were pos-

protein electrophoresis of the fluid should be carried out, rather than mistakenly attributing a rare but treatable case of pleural plasmacytoma with effusion as due to some more common cause.

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### Electrocardiogram Sometimes Misses Coronary Artery Disease

The grim tale of the patient who undergoes a complete physical examination, is given a clean bill of health, then drops dead of a heart attack as he leaves the doctor's office is widely known. This doesn't happen often, but it does happen.

A research group from the Institute for Cardiovascular Diseases at Good Samaritan Hospital, Phoenix, Ariz., tells why in an article in the June 11th issue of the *Journal of the American Medical Association*.

The electrocardiogram—the monitoring machine on which the doctor depends to determine heart problems—does not always reliably predict the extent of coronary artery disease. The electrocardiogram (ECG) will show a normal tracing in a substantial number of

patients with significant triple-vessel coronary artery disease, when the ECG is taken in the usual resting position, supine on an examining table in the doctor's office or hospital.

In a study conducted in the Phoenix hospital, the researchers found that 17 of 106 patients known to have triple-vessel coronary artery disease had completely normal ECGs. Three patients with 100 per cent obstruction had normal readings.

"It is apparent that the extent and distribution of coronary artery disease cannot be predicted reliably on the basis of a single normal electrocardiographic tracing."

The report is by M.D.s Alberto Benchimol, Charles L. Larris, Kenneth B. Desser, Boh T. Kwee and Steven D. Promisloff.



# Simplifying Three-Stage Colon Resections

LAWRENCE S. WOLPIN, M.D.  
Portsmouth, Virginia

**A method for making the formidable three-stage colon resection a shorter and easier procedure is presented.**

**W**HEN CONSIDERING classic three stage procedures for left colon lesions, initiated by a true defunctioning colostomy, one is faced with three formidable operations

elderly, with associated illnesses, any effort to safely simplify our approach is certainly worth while.

I recommend that during the second, or resection stage, the mucous fistula also be taken down and be anastomosed to the right transverse colon before it exits from the abdomen, in a side of right transverse colon to freshened end of mucous fistula fashion. This adds only about fifteen minutes to the second stage, and converts the third stage from a major laparotomy, to a minor oversewing of the end of



and postoperative courses. The third stage, or "simple colostomy closure" is, in fact, not so simple, and when, as is often the case, the right transverse colostomy and mucous fistula are on opposite sides of the abdomen, requires major laparotomy. To complicate matters, the prior stages often have extenuated the problems, because of multiple abdominal incisions, drain sites, and incisional hernias due to the frequent wound infections accompanying the first stage. Adding to the above problems, the fact that these patients are most commonly

the colostomy, a procedure which now can even be done under local anesthesia.

## Case Report

M. H., a 47 Y.O.F. underwent an exploratory laparotomy through a long mid-line incision for acute perforated diverticulitis in July 1970. A defunctioning colostomy and drainage was performed, with right transverse colon brought out into the right upper quadrant, a mucous fistula in the left upper

quadrant. She developed a lower abdominal abscess which was drained through a transverse left lower quadrant incision two weeks later. She also developed a wound infection, and subsequently a huge incisional hernia in her mid-line incision. In January 1971, she underwent the second stage, which consisted of a sigmoid resection and hysterectomy for concomitant gynecologic disturbance. Her mucous fistula was taken down, the end freshened, anastomosed to the side of the right transverse colon approximately two centimeters below the peritoneum. She also underwent incisional

herniorrhaphy. Two weeks later, a barium enema and coloproctoscopy revealed both anastomoses to be widely patent, and one week following these studies, under local anesthesia, her colostomy was closed with a simple reinforced Parker-Kerr suture. She was discharged five days following colostomy closure and has continued well. As her x-rays show, this leaves a large wide-mouthed iatrogenic diverticulum at the site of colostomy closure which has caused no problems (Figs. 1 and 2).

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### Health Hazard in Drug for Traveler's Diarrhea

Americans traveling abroad are advised to avoid buying non-prescription drugs for self-treatment of traveler's diarrhea in an article in the July 23rd issue of the *Journal of the American Medical Association*.

Many of these products sold in other countries contain a drug that may cause serious neurological upsets and even death, says the report by Godfrey F. Oakley, Jr., M.D., of the Center for Disease Control at Atlanta and the University of Washington Medical School at Seattle.

The offending drug is known to pharmacologists and physicians as iodochlorhydroxyquin. It is sold under more than 50 different trade names throughout the world, in many countries without prescription. In the United

States it is available only on prescription and is used principally to treat amebic dysentery.

Actually, these drugs do not help overcome traveler's diarrhea and should not be used for this complaint. Unregulated use of products containing this drug can cause an impairment of the senses, particularly the sense of touch. More serious, they can cause eye damage that sometimes leads to blindness. In severe cases the result may be death.

"Because the drugs are sold under a large number of different trade names, an American traveling out of the country may find it difficult to avoid being exposed to the drug if he buys any over-the-counter remedy for diarrhea. It seems prudent, therefore, to advise travelers to avoid buying any over-the-counter products."



# Dilemma of Herniated Lumbar Disc

## Experience With Over 1,200 Surgical Cases

A. R. COPPOLA, M.D.  
Newport News, Virginia

**Herniated lumbar disc is seen so frequently that all physicians must be familiar with the criteria for diagnosis and with the relative merits of the various methods of treatment.**

**P**HYSICIAN AND SURGEON ALIKE are not infrequently confronted with the problem of the patient with neck or low back pain requesting advice as to diagnosis and treatment. Should the treatment be of a conservative nature or should one consider surgery, if the lesion responsible is disc herniation? If a conservative approach is utilized, for how long a period of time must one entertain this mode of treatment and when should one embark on surgical removal of the lesion? Is the problem the same in a patient who is a laborer, a physician or a housewife? Suppose the patient is pregnant? Consider the compensation patient, the personal injury (automobile or other vehicular accident) patient, and the patient undergoing present or past psychiatric treatment. When should myelography be performed? What are the risks of surgical interference, conservative treatment of a prolonged nature, and what are the probabilities of total "cure"? In an attempt to answer these, and kindred, questions this paper will deal with only the herniated lumbar disc problem; a subsequent manuscript will consider kindred problems involving the cervical disc syndrome.

Any patient who presents to the physician with back, hip, or radiating leg pain of dura-

tion beyond a few days, or at most a week, is entitled to radiographic examination of the lumbar spine beyond the initial physical and neurologic examination. Failure to do so is almost tantamount to medical malpractice since compression fractures of vertebrae, vascular involvement (hemangioma) of bone, primary and metastatic lesions of bone, infections (tuberculosis of bone), cannot be otherwise readily ascertained and valuable time may be lost. Narrowing of a disc space is most unreliable evidence of the presence of disc herniation at this same space and, in the main, should be discounted. Normal x-rays of the lumbar spine are the "rule" for the most part in cases of disc herniation and are of assistance almost solely to exclude the previously mentioned possibilities. Absence of "positive" neurologic findings (loss and/or alteration of reflexes, sensation, motor power, leg-raising tests, and the like) is *not uncommon* in patients with disc herniations; the author would estimate conservatively that 5-10% of his patients in private practice show no such changes! Often the history of recurrent, protracted, progressively severe back or hip pain is the sine qua non of probable lumbar disc protrusion and the answer is vividly yielded at the time of myelography.

When should myelography be considered? Failure of symptoms to disappear or increased pain and failure of the patient to improve within a reasonable period of time—several days to several weeks—should predicate the desirability of myelographic study. In approximately 90-95% of patients the establishment of disc herniation can be then readily verified. In a small number of patients failure of myelographic verification will have to rest on the

clinical syndrome for need for further conservative versus operative treatment. In either event the patient, as well as the physician, is in a better position to assess and evaluate the future outlook of therapy. Spondylolisthesis and spondylolysis have occupied much of the orthopedic, and to a somewhat lesser extent, the neurosurgical literature. Either one or the other of these conditions may or may not be associated with disc herniation. It is preferable to deal with the disc herniation per se if it exists, and to consider possible corrective orthopedic measures (such as fusion) at a future later date if necessary. It will be found not infrequently that disc excision is sufficient to correct the underlying problem and further surgery is inadvisable and often unnecessary. It is not always possible to distinguish on a clinical basis, and sometimes not even after conclusion of myelography, the herniated disc lesion from the intra-spinal neoplasm<sup>1</sup> and this factor alone may render myelographic procedure obligatory on the treating physician. Ochronosis<sup>2,3</sup> and achondroplasia<sup>4,5,6,7,8,9,10</sup> present rather unique problems. The former is quite rare, the latter less so. Disc lesions occurring in achondroplastic dwarfs present a unique and very disturbing problem to the neurologic surgeon since both myelography and surgery may prove exceedingly difficult from a technical standpoint because of the narrowed canal and deformity. Symptoms of intermittent claudication similar to those seen in the spondylotic cauda equina syndrome<sup>11,12,13,14</sup> may not be unusual. The author has had two achondroplastic dwarfs with radicular symptoms, but fortunately has been able to avoid surgery in both. Many of these dwarfs experience symptoms in later life and come into the orbit of the neurosurgeon at such time. Symptoms of intermittent claudication are not readily recognized by the medical profession and, although secondary to spondylotic compression of the cauda equina, may easily be confused with the symptoms of intermittent vascular claudication, and therefore be less frequently diagnosed. Without the aid of myelography multiple disc lesions or

the presence of a spondylotic ridge or multiple ridges may be quite possibly overlooked at the time of surgery.

Several remarks on myelography seem appropriate at this time. The procedure is performed in the radiology department by the neurosurgeon who remains in attendance during the fluoroscopic procedure. The pantopaque (6.-10.cc) is usually run cephalad to the level of D<sub>10</sub> for lumbar myelography and is removed at termination of procedure. So long as the spinal puncture needle is in the lower lumbar spaces it matters little which space is utilized, although it is preferable to perform the spinal puncture *above* the site of spondylosis, since injection *below* the site may require a second more cephalad puncture. The experienced neurosurgeon should be able to distinguish needle "artefact" from a true lesion with little difficulty. Extradural or subdural extravasation of the injected medium usually defeats the procedure dramatically and completely; it is then wise to resort entirely to the clinical picture or repeat the study at a later date. Reactions to myelography are rare but may be due to improper positioning of the spinal puncture needle, inexperience with the procedure, bleeding, and subsequent chemical or "aseptic meningitis" in the occasional allergic patient, altho serious and even fatal reactions have been reported.<sup>15,16</sup> Recovery of pantopaque if incomplete is not a serious problem and in almost all instances the dye may be left with virtual impunity. Postmyelographic headache (a #18 gauge needle is used) can rarely be avoided since there is escape of cerebrospinal fluid extradurally through the opening made in the dura, after removal of the needle, *even though* little CSF has been removed at the time of myelographic surgery. Patients should be warned and advised of this probability in advance. The author has never had to repair such a dural tear made by the needle although this has been reported as a very rare complication. Care should be utilized to avoid injection of the pantopaque into a blood vessel at the time of puncture since this may result in embolism to the pulmonary



circulation.<sup>17,18,19</sup> This complication can usually be readily avoided by the simple expediency of aspiration prior to injection. Having completed the early stages of disc diagnosis it now becomes necessary to consider surgery, the technic, and the possible complications of such operative intervention.

The surgical technique of intervertebral disc surgery<sup>20</sup> certainly would appear to be of little practical application to the practicing physician; but it is often his duty to refer the patient to the appropriate neurosurgeon and since, also, his exposure to the operating theatre has often been limited, it is not without importance that he should be aware of some of the difficulties encountered there by the neurosurgeon and the patient. The most common difficulties at the time of surgery encountered by the neurosurgeon are (in order of frequency): 1. hemorrhage; 2. exposure, identification, and possible injury to the nerve root; 3. injuries to the cauda equina (especially with massive disc protrusions or rupture); 4. cerebrospinal fluid leak (often the result of tearing dura and arachnoid); 5. perforation of the anterior ligament with subsequent injury to great abdominal vessels (aorta or vena cava),<sup>21,22,23,24</sup> and ureter.<sup>25,26,27,28,29</sup> There are perhaps very few neurosurgeons who have not, at one time or another, experienced one or all of these mishaps. Hemorrhage from epidural vessels during exposure of the nerve root and disc, after removal of the ligamentum flavum, can prove to be a rather harrowing experience; on occasion neurosurgeons have been known to have terminated the procedure after ultimate control of bleeding. Cauterization of vessels in the epidural space is to be avoided as is also the use of excessive amounts of absorbable hemostatic agents because of possible harmful sequelae to nerve root and/or cauda equina, since thrombosis, or swelling and tamponade by the hemostatic agent can occur.<sup>30</sup> Exposure and identification of the nerve root is usually a relatively simple step but even a quite experienced neurosurgeon may find the root stretched to almost "cellophane" consistency over a very large protruded or ruptured disc.

It can be appreciated that opening into the disc through overlying nerve root may readily result in postoperative difficulties to the patient ("foot drop", sensory loss, etc.). Cerebrospinal fluid leakage at the time of surgery is most frequent of occurrence at the time of secondary (recurrent) operative exposures for disc herniation. Scar tissue at the operative site may vary from a few millimeters to a centimeter or more both in depth and length. In attempts to free and preserve the nerve root, injuries to dura and arachnoid may not be uncommon. These may later eventuate in formation of a so-called false or "spurious" meningocele<sup>31</sup> which will often necessitate further surgery for correction. It is the ambition of every neurosurgeon to remove "all the disc" at the time of surgery. Attempts to do so with vigorous use of the curette or other means may produce injuries to aorta, vena cava, or ureter, which may prove disastrous to the patient. These complications may often give little or no indication of their occurrence at the time of surgery but may present rather in the *postoperative phase*; failure of recognition of any one of these may result in shock, rapid death, or subsequent sepsis. Injuries to the cauda equina are associated with (1) exploration of multiple interspaces and attendant hemorrhage, (2) control of excessive bleeding from epidural vessels by use of absorbable cellulose (which may later expand and cause tamponade of the cauda equina), (3) attempts to remove a massive disc protrusion or large ruptured fragment which has already compromised the cauda equina and to which further injury may occur during surgical manipulation, (4) re-exploration for disc herniation where excessive scar tissue obscures identification of anatomical structures, and (5) "fusion" operations where bone chips or fragments may lodge in the spinal canal and exert pressure against the cauda equina.

There are additional hazards and complicating aspects to disc surgery. In addition to operative hemorrhage, injury to nerve root or cauda equina, cerebrospinal fluid leakage, great vessel injury, there should be included anesthe-



tic complications, wound infection, infections of the intervertebral disc interspace, failure to detect presence of an associated neoplasm, and failure of exploration of the correct disc space. In the presence of excessive scar tissue from previous disc surgery or fusion, congenital anomalies of spinal architecture, or an occasional very narrowed interlaminar space it is not inconceivable that failure to identify the involved disc space can occur; of course, if this is unrecognized at the time of initial surgery, subsequent operation for correction of the lesion becomes obligatory. It should be mentioned that, as in general surgical procedures, the "wrong side" can also be operated upon by error and in the case of lateral disc rupture little or no benefit will accrue to the patient. Especially difficult of operation are the cases of previous spine fusion where spinous process removal, bone fusion mass, and scar render correct interspace identification exceedingly difficult and at times well-nigh impossible. The adjunctive aid of x-ray and "markers" of one kind or other may prove of some additional aid at the time of surgery. Pre-operative electrocardiogram is especially advisable prior to surgery since cardiac arrhythmias, hypotension with postural change of the patient, and even cardiac arrest may occur. Obesity, diabetes, pulmonary emphysema and fibrosis, and moderate degrees of myocardial insufficiency contribute greatly to the gravamen of anesthetic risk to the patient. Cardiac monitoring, advisable in general, is a sine qua non in this group of patients. Pre-operative medical consultation and pulmonary physiology studies may prove of assistance in determining the degree of risk of the patient for operative intervention. An anesthetist or anesthesiologist unfamiliar with these potential hazards will certainly add greatly to operative morbidity and mortality. Postoperative wound infections present no different problem from those encountered during general surgical procedures, but postoperative disc infections<sup>32,33,34,35,36</sup> are sui generis quite the contrary. Often, it is impossible to determine the mode of infection. Characteristic in

the postoperative phase a sudden unexplained "spike" in temperature is not unusual and is often followed by such inordinate pain on slightest movement of the patient that not infrequently these patients are considered to be hysterical by the physician or ancillary hospital personnel unfamiliar with this syndrome. Laboratory studies are often of very little aid in diagnosis. There are usually three characteristic findings with the syndrome of postoperative disc space infection: 1. pain on motion, or even at rest, with severe lumbar muscle "spasms"; 2. elevation of the sedimentation rate, and 3. x-ray changes involving the intervertebral spaces and adjacent vertebral bodies (which may not be evident until several weeks or even months after surgery).<sup>37,38,39</sup> Treatment may prove often as difficult as diagnosis in the first instance and septicemia may occur with an occasional death. Failure to detect a neoplasm of the lumbar canal may most commonly take place when the advantages of myelography have been eschewed. In these cases a clear-cut neurologic syndrome of disc disease may lead to direct exploration and associated neoplastic disease may be easily overlooked. In consequence, subsequent and later symptoms may result in delayed diagnosis and subsequent surgery. Although the anterior approach for lumbar discs,<sup>40,41,42</sup> especially for correction of spondylotic defects and "spurs", might seem ideal, the complications of this procedure (especially phlebothrombosis and pulmonary embolism) have in the main precluded this as the ideal technical approach in this country. Recurrent disc herniations are the experience of every neurosurgeon and the incidence has been variously estimated at 5% to 20%, and is probably not avoidable with present surgical technics.

Meriting serious consideration are herniated discs arising from various occupations, ages of patients concerned, stage of life, type of activity of the patient, and mode of production of disc herniations. It is indubitably true that there must exist predisposing changes either in the annulus fibrosus, or posterior liga-



ments or associated articular changes at the joint interspaces<sup>43</sup> which lead to ultimate disc protrusion or rupture. Whether such be familial, genetic, or developmental in origin remains unknown at present. Every neurologist and neurosurgeon must have observed countless situations where a patient has sneezed, coughed, bent over, twisted the spine during work or athletic activity with ensuing rupture of a lumbar disc and immediate sciatic pain into the leg with *few* or *no* existing premonitory symptoms. This would supply corroborative evidence of weakness or laxity of the supporting structures to the intervertebral disc so that rupture may dramatically ensue. Of less awareness to the average practitioner however, is the so-called "teen-age" disc syndrome.<sup>44,45,46</sup> Since teen-agers may present to the physician with a multiplicity of complaints such as headache, vague abdominal pain, and back-ache it is not unusual for the last of these to be categorized as "musculo-skeletal" strain or of psychosomatic origin. Less appreciated is the fact that many of these teen-age patients suffer from herniations or rupture of the disc not dissimilar to those of the adult patient.<sup>47,48,49</sup> The youngest in the author's experience was a girl slightly over ten years, brought to the office on a board, previously diagnosed as "conversion hysteria". Surgical removal of her disc herniation led to a dramatic and complete cure of her symptoms. Since these patients on the whole make such a dramatic recovery with surgical removal of disc herniations, delays and conservative treatment seem scarcely justified. More recently, however, it has been shown that follow-up x-ray spine studies are indicated because of the possible later development of spondylolisthesis<sup>50</sup> in such patients. Whether spondylolisthesis following disc surgery in very young people is more common than the reported cases seem to evince will undoubtedly depend upon two factors: the increased incidence of disc surgery in this group and serial, postoperative roentgenograms over a period of years. With recent advances in anesthesia and anesthetic agents, surgical preoperative and postoperative

care in the elderly, the relative rapidity of surgical technical virtuosity, there seems to be no rationale in denying the advantages of surgical relief to the older patient for disc herniation when the usual methods of conservative treatment have failed. Osteoarthritic spurring, with radicular pain limited to a single dermatome level, is often remarkably amenable to surgical decompression of the nerve root with extreme relief to the patient. There is a paucity of literature dealing with pregnancy and the herniated disc syndrome: quite probably this may be because back pain, as well as other complaints, are not so uncommon during pregnancy that the expectant mother is expected to tolerate all the ills that beset her! The author has had at least three patients in his practice who required disc surgery because of intolerable pain due to disc herniation, without relief with bed rest and considerable analgesic medication, and with protracted duration of sciatic pain. Myelography may be avoided in such instances if desired and direct exploration with gratifying cures may well be anticipated. These patients certainly represent a very insignificant group of patients suffering from disc herniation and, to be sure, surgical exploration may be justified only when all else fails. It would appear in general that most pregnant women manage to "get through" the puerperium but may later require disc surgery because of failure of symptoms to abate. Careful histories in many patients seem to verify this conclusion. Flexion-extension injuries to the cervical spine, or "whiplash," has occupied a voluminous medical and legal portion of the literature of both professions. One can only marvel at the scarcity of low "backlash" injury although certainly this must also occur! The incidence of disc injury, aggravation or herniation must either be infrequent or other factors must undoubtedly play a part in medico-legal litigation. The fact remains that disc herniations may occur following automobile accidents and are more likely to occur in the obese patient who at time of impact is thrown backward or even may have the experience of being thrown, seat and all, com-



pletely off the seat track in a retrograde direction. Myelography is utilized as an aid if no improvement in back or leg pain continues despite conservative treatment. Failure to diagnose a central disc protrusion can lead to weakness or paralysis of both lower extremities and irreversible injury to the cauda equina with bowel and bladder paresis. Surgery in these patients may come too late and reversion of paretic structures to a norm may be delayed for several years and occasionally, only incompletely. Myelographic documentation of the presence of a disc lesion or possible tumor should therefore be requested at an early stage of the disease before irreversible neurologic deficit may ensue. Conservative treatment for weeks or months should be avoided. Compensation injuries<sup>51</sup> constitute a very considerable percentage of orthopedic and neurosurgical practice<sup>52,53</sup> and statistics reported of relief or cure vary quite widely from one series of cases to another.<sup>54</sup> Professional, educated, or highly motivated patients seem to do the best, while the laborer and unskilled patients do rather poorly. Early diagnosis with definitive surgical treatment may yield a higher degree of rehabilitation rather than prolonged treatment with medication, hot packs, ultrasound and the like, where a disc lesion is the causative factor. Unless provisions for less arduous occupation can be found it is advisable to keep the post-operative laborer unemployed for a period of two to three months. A longer period of unemployment may preclude any satisfactory rehabilitation and should therefore be vigorously denied the patient unless unforeseen complicating factors present. Professional people such as lawyers, doctors, architects, teachers may often be returned to their full employment within two to three weeks after operation. In dealing with compensable disc injuries one must be fully aware of the highly charged role which possible future disability connotes to the laboring, unskilled patient who suffers from disc disease and has been subjected to disc surgery. A painful spine which subsides in a few days is quite different from a painful back of several months duration. Few

employers make allowance for lesser productivity on the part of their employees, and quite justly may not be expected to do so. The patient, unable to perform fully, may lose his employment and, of far greater importance, becomes *virtually unemployable*. He is almost automatically denied employment *and* insurance the moment he makes known the fact that he has had disc surgery; in this respect, his problem is not very dissimilar to the epileptic patient! If successful in obtaining employment the salary is often at such a reduced scale that the patient finds it exceedingly difficult to support a family. Satisfactory solutions to this problem are certainly not readily provided. It would appear to be an incontrovertible conclusion that a significant responsibility to the patient is owed by both the attending physician and society. A greater degree of flexibility by employers and industries in general would facilitate relief of the patient's apprehension of loss of his livelihood and ability of future earnings. No less important is the moral and sociologic attitude of the attending physician. If it is evident that the patient cannot return or perform his previous occupation after surgery and that appreciable loss of income will result to the patient, then compensatory permanent disability should be provided to the well-motivated and sincere patient who deserves no less than this degree of consideration. In actual practice this has not proved for the most part to be a theoretical exercise for the number of such patients over-all is not overwhelming. The malingerer is readily detected and this type of protection can be easily denied him. Rhizotomy for persistent pain is usually of only transient aid to the painful postoperative disc patient.<sup>55,56</sup>

Medicolegal aspects of the herniated disc problem merit particular consideration since the number of lawsuits involving physicians and surgeons is likely to increase rather than to decline.<sup>57,58,59</sup> Failure of diagnosis, or misdiagnosis, though not the most fertile grounds for suit, may assume increased prominence especially where the complicating features of



bladder, bowel, or extremity paresis have occurred because of protracted, non-specific therapy. Hospital infection of wounds has already exposed both the hospital and the physician to rather costly malpractice suits. Injury to great vessels<sup>60,61,62</sup> and other traumatic injuries occurring during disc surgery have had a similar history and, dependent as always on the courts and juries in various jurisdictions, have led to very sizeable recoveries. The doctrine of "informed consent" has sometimes been extended to the breaking-point so that the degree of knowledge which must be imparted to a patient undergoing surgery becomes well-nigh incredible. One wonders how the surgeon under these and comparable circumstances can protect himself against future litigation. And to this at the moment there seems to be no one satisfactory rejoinder. Permitted in some courts, and looked askance at in others, the doctrine of "res ipsa loquitur" opens the million-dollar door for the jury so inclined. An incomplete answer to the problem may conceivably be found in the fact that where formerly the physician was at the mercy of any patient who could find an attorney to take his case, the increasing number of mal-

practice cases against attorneys themselves may help stem the tide. There is little prospect that lower jury verdicts are likely. An ultimate plan somewhat comparable to that of "no fault" auto insurance may prove of inestimable value for protection of patient and physician alike.

### Summary

Herniated intervertebral lumbar discs pose problems to the general practitioner and neurosurgeon alike. Management by conservative approach, time for consideration of operative intervention, myelography, and surgical techniques have been discussed. Differences in patients as to occupation, age, types of injury incurred, and probably results of therapy have been considered. Complications of non-operative and surgical intervention, as well as the medico-legal implications of disc surgery have been discussed.

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*Note:* A full list of references may be obtained from the author.

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### Drinking Ice Water Declared Harmless

Drinking cold water or ice water when you're overheated from exertion has the okay of two medical consultants in the June 18th issue of the *Journal of the American Medical Association*.

The commonly held belief that drinking very cold water on a very hot day is bad for your health just isn't true, says John L. Boyer, M.D., of San Diego, Calif., and Allan J. Ryan, M.D., of Madison, Wis.

Dr. Boyer writes: "Some studies that we have done in our laboratory indicate that there is no basis for concern. We have recorded the temperatures of some of our students following a high level of physical activity, and

then immediately following ingestion of large quantities of water at various temperatures. There was no significant temperature change due to drinking the cold water from the refrigerated drinking fountains in our gymnasium."

Dr. Ryan writes: "I am aware of no evidence to the effect that drinking ice water is harmful to athletes in the course of their participation in sports." He pointed out that ice water stimulates rapid emptying of the stomach, and that it is possible that stomach cramps might result, but this would not be a serious effect.

# Diseases of Children

## 50 Years of Continuous Practice

**A capable and dedicated pediatrician remembers 50 years of practice.**

**A**T THE OUTSET I deem it proper to inform you that I am a self-invited speaker at this meeting. I am confident that those who are responsible for my appearance before you will be able to marshal an adequate excuse for their error of judgment.

The 23rd of next month will mark my 83rd birthday. This month marks 50 years of continuous pediatric practice in this community, interrupted only by eight operations: submucous resection; appendectomy; cholecystotomy; tonsillectomy; six cystoscopies for a non-existent stricture of the ureter; herniorrhaphy; removal of a remnant of a rubber tube left from the previous cholecystotomy, and removal of a nasal angioma. I am the not-so-proud possessor of an expanding pancreatic or renal cyst which is pushing the right kidney down into the pelvis and crowding the intestines into the left side of the abdomen.

I was welcomed to these blessed shores by the Statue of Liberty in New York Harbor, December, 1909. The spiritual and cultural baggage, which I brought with me, was transmitted to me *via* the Jewish tradition, which blended reality with the American mind and spirit.

America became a nation by virtue of the American Revolution. The patriotism of the men who played so decisive a part in the American Revolution was fired by the example of judges and prophets of ancient Israel.

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Presented before Danville-Pittsylvania Academy of Medicine, May 11, 1973.

SAMUEL NEWMAN, M.D.  
Danville, Virginia

The great British historian, W.E.H. Lecky (1838-1903) writes: "It is at least an historical fact that in the great majority of instances the early Protestant defenders of civil liberty derived their political principles chiefly from the Old Testament." (Rationalism in Europe) Philip David Bookstaber in his book, "Judaism and the American Mind", states: "The founders of America were steeped deeply in Hebraic learning and the 'Hebraic Mortar' in the structure of America cannot be underestimated."

The rights and privileges of citizenship were conferred upon me in 1916. On that day I was bound, legally and morally, to conform my future civic and political activities to the letter and spirit of the Constitution. The term Reactionary, Conservative, Liberal or Radical, conveys no meaning to me. Life is dynamic, not static; life is *process*. Each problem must be solved in the context of the present with a view of a rational foreseeable future. Every social, civic and political involvement of mine should be tested in the light of its conformity with the letter and spirit of the Constitution of the United States.

The Constitution allows ample scope for differences of opinion on all essential concerns of life; the differences must lie within the frame of legality as determined by the Constitution and its interpreters, the Supreme Court of the United States. The core and heart of the American philosophy is Pragmatism, as distinguished from abstract, or romantic, philosophies in vogue on the European continent. Pragmatism is defined:

"In order to ascertain the meaning of an intellectual conception one should consider what practical consequences might conceivably result by necessity from the



truth of that conception; and the sum of these consequences will constitute the entire meaning of the conception."

It is this philosophy which served as the force behind the unfolding of American civilization.

After intensive study in European medical centers, and capping it with a year of Residency at the Children's Clinic of the University of Vienna, under the tutelage of Clemens Von Pirquet and Bela Schick, I returned to the United States with the intention of pursuing an academic career. I was offered an instructorship at the Washington University in St. Louis, under McKim Marriott. My wife vetoed it. June, 1923, I pitched my tent in Danville. With a strong orientation towards the laboratory, I equipped my office with x-ray and laboratory facilities in charge of registered technicians.

My entry upon the study of medicine was motivated by a strong tradition. From the beginning of their history, until modern times, Jews have exercised a tremendous influence on the development of medical science. In the Jewish tradition the physician is regarded as an instrument through whom God could effect the cure. Jewish physicians considered their vocation a spiritual gift and challenge. Jews have contributed to medicine both by creation of new medical concepts and by the transmission of medical knowledge. It was through the medieval Jewish and Arab physicians that the medical knowledge of the East and much of ancient Greek medicine were preserved and transmitted to the West.

Of the 440 Nobel Prize Winners, 66 are of Jewish extraction. Of the 66 Nobelists 53 are in medicine, chemistry and physics. This preeminence of Jews in science is not due to any racial trait but to traditional emphasis on learning. The ancient Greeks built mansions of the mind; the Romans, great public works and empires; the Hebrews extolled learning. In our times the Russians furnished an example of what can be accomplished by reordering priorities. Under the Czars 98% of the population were illiterate. Now literacy

is as high as 97%. China, too, has reordered its national priorities, with surprising results in the fields of science and technology.

Private practice, as a rule, does not offer opportunities for adding to basic medical knowledge; this is the province of medical centers and research institutes. The function of the practitioner is to apply the best which is already established as sound practice and to guard himself from becoming mired in stale routine. The practitioner has a duty to sharpen his acumen and to acquire the rudiments of epistemology: the branch of philosophy which investigates the origins, nature, methods and limits of human knowledge.

At the time I planted my feet in this community pediatrics was not a recognized and organized specialty, except in a few large cities such as Boston, New York, Philadelphia, and Chicago. There were probably, at that time, only two full time chairs in pediatrics in the country. The American Board of Pediatrics was organized in the year, 1933. I received my certification as a Licentiate of the American Board of Pediatrics October 27, 1934. At that time there were only two other certified pediatricians in Virginia: Dr. Mangum in Richmond and Dr. Royster at the University of Virginia. The first 20 or 25 years the scope of my practice was broad. I set simple fractures; did minor surgery; thoracotomies for empyema; myringotomy, and paracentesis of the pericardium.

Laboratory facilities in the hospital in those days were extremely limited. I was the first to give a blood transfusion to a child in the State of Virginia; to establish a blood bank and prepare blood plasma, and parenteral solutions in my office.

### The Clinics

At the initiative of Dr. R. W. Garnett, one of the most progressive health officers in Virginia, a weekly Child Health Clinic was organized, within the first month of my arrival in Danville. It is still functioning. Only seven times have I failed to attend the clinic. A conservative estimate of the number of visits to

the clinic is between 24,000 and 25,000. Under the auspices of the Charity League of Martinsville and the Red Cross, a free monthly clinic was organized. The first clinic was held June 11, 1924, and the last clinic, December, 1966, covering a period of 42½ years. Only four clinics were missed, due to illness. The number of visits totals a little over 6,000. The Charity League in Martinsville established the Samuel Newman Hospital Fund. The Junior Wednesday Club in Danville established a monthly clinic for children in 1937. It was renamed the Samuel Newman Children's Clinic of the Junior Wednesday Club. Due to improved social conditions in the county, only few patients have been seen during the last two or three years. The total number of visits to the clinic is approximately 5,000.

The service rendered to the patients was more than perfunctory. It involved the assistance of public health nurses, volunteer workers, and referrals to local and out-of-town specialists and institutions. In some cases large sums of money were expended by the Charity League of Martinsville and the Junior Wednesday Club Children's Clinic, or the City of Danville for the care of patients. Communication with various specialists broadened my medical knowledge.

The article, "The Private Practice of Pediatrics" in the February, 1973, issue of "Resident and Staff" answers the questions, "Whom do they treat? What do they treat? How much do they earn?"

Most common conditions treated by pediatricians currently are:

- A. Neonatal visits; well-baby care and child care; prophylactic treatment.
- B. Medical and surgical aftercare; general medical examinations.
- C. Gastro-intestinal conditions.
- D. Common cold; hayfever; asthma; bronchitis; pharyngitis; tonsillitis; laryngitis; otitis media; pneumonia.

Pediatricians have the lowest net income of all doctors. The average for physicians as a whole (1972) was \$39,727; for surgeons,

\$48,868 and for pediatricians, \$31,812. The average number of visits annually is about 7000.

The illnesses which I have encountered during the first 20 years of practice are seldom encountered now. In the first decades of practice I saw rickets, scurvy, marasmus, pellagra (acrodynia) typhoid fever, tuberculosis in many forms, malaria, osteomyelitis, rheumatic fever, pyoderma (malignant chicken pox), diphtheria, Rocky Mountain spotted fever, phlyctenular conjunctivitis, xerophthalmia, diaphragmatic hernia, weeping eczema, tumors (benign and malignant) and leukemia.

Facilities for referral during those years were limited. Practice presented a challenge to diagnostic acumen; it also presented the possibility for mistaken diagnoses and iatrogeny.

In 1923 Dr. Bela Schick, University of Vienna, was invited to become Pediatrician-in-Chief at Mount Sinai Hospital and Professor of Pediatrics at Columbia University. He was very helpful to me with referrals and advice by letter and telephone. A child was referred to me for treatment of jaundice. The correct diagnosis was Addison's Disease. I sought advice concerning this condition from Dr. Schick. "Thereby", as the saying goes, "hangs a tale", (*Aphorisms and Facetiae of Bela Schick*, by I.J. Wolf, M.D. 1965) In April, 1938, a case of Addison's Disease in a boy, aged 11 years, was presented at Grand Rounds at Mount Sinai Hospital. This case had been a diagnostic problem to the staff. At the conference Dr. Schick said that he received a telephone call from Danville, Virginia, last week about a boy there with Addison's Disease. In view of this he was well prepared to diagnose the case. Full credit for the correct diagnosis was due Dr. Newman.

This incident and others that I could recite about this man, if time permitted, gives insight into the character of the man who for decades was regarded as the greatest living pediatrician.

It may be of interest to allude now to the way the medical profession is looked upon by some non-medical men.

At a meeting of the American Philosophical



Society (founded 1743) it was stated that "Truth in all its kinds is the most difficult to win; and truth in medicine is the most difficult." A human being, unlike a computer, is more than the sum of his parts. There is something elusive about a human being, call it spirit or soul. A milligram of digitalis per kg. of body weight in one person will not produce the same effect in another person. Of all scientific disciplines, medicine is the most guilty of "post hoc, ergo propter hoc" (after this, therefore, on account of it); a type of fallacious reasoning as to argue that because night follows day it follows as a result or consequence of day. Some great medical reputations have been built on this fallacy. Some prestigious medical institutes and Ivory Tower luminaries have come under criticism for announcing, publishing and promoting procedures and cures which are short-lived. The absolute truth is not attainable. It is like a shattered mirror scattered in myriad bits, occupying different levels in space and time. Each person believes his little bit is the whole.

From the beginning of recorded history the physician occupied a unique position in society by virtue of self-imposed and imposed high ethical codes. The basis of medical ethics is secular and religious. The well known Hippocratic Oath reflects the ethical ideas of the Greeks which were summarized by Aristotle (384-322 BC). Aristotelian ethics bases its conception on morality upon the moral judgments and practices of the wise and good men of Greece. According to Aristotle, morality is discovered by empirical observation, without reference to any transcendent good or standard. The great German philosopher, Immanuel Kant, formulated the secular or philosophical basis of ethics in the well known Categorical Imperative: "Act as if the maxim of thy will were to become by adopting it a universal law of nature".

The religious basis of medical ethics stems from the fact that religion and medicine have been in alliance with each other in every land, among all peoples throughout recorded his-

tory. The moral and ethical outlook of the Western World is influenced—if not absolutely determined—by the Judeo-Christian tradition. In our Western Civilization, "nature" is conceived as permeated in some way or another by God. Einstein speaks of it as "Cosmic Intelligence"; the great Christian theologian Paul Tillich, as the "ground of being". A Hedonist: one who believes that pleasure, or pleasant consciousness, and this alone, has ultimate value, would not be tolerated as a physician in our society.

It has been juridically determined that a physician in the performance of his duties must conform to a high ethical code. In Nazi Germany experiments were conducted on human beings on the so-called inferior races—Jews and Slavs, without their consent, and, in many instances, without the consideration given to experimental animals. At the University of Vienna, 1922, I sat at the feet of the world-renowned authority on the diseases of the liver and spleen, Dr. Hans Eppinger. During the Hitler years he performed experiments on Jewish women. The defense maintained that such experiments were by orders of his superiors. The courts did not accept such defense on the part of a physician.

As human beings we are subject to all the frailties of man born of woman. Humility becomes each one of us. The French philosopher, Henri L. Bergson, a Nobelist, stated that the potential capability for immediately grasping reality is actualized only in a few select men. Strong fetters of habit tie man down to the social, moral, and conceptual reality of his environment, and only an elite few are capable of extricating themselves. Constant and diligent study must accompany every day of our practice.

The pursuit of knowledge is an arduous task. In the words of Rabbi Tarfon (1st Century A.D.):

"It is not for you to finish the task, neither are you free from pursuing it."

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770 Main Street  
Danville, Virginia 24541

# **Medicare—Part B . . . .**

CURTIS J. KELLY, JD

## **Services of Physician's Assistants**

A new category of allied health personnel, known by various identifying titles, e.g., physician's assistant, medical specialty assistant, medical services assistant, nurse practitioner, etc., are being trained under various programs to assist or act in the place of the physician. The services performed by those so trained include not only services ordinarily performed by the physician's nurse such as taking blood pressure, giving injections, changing dressings, but also services heretofore ordinarily performed by the physician himself, such as routine physical examinations, minor surgery, assistance in major surgery, setting casts on simple fractures, reading x-rays, and other activities that involve an independent evaluation or treatment of the patient's condition.

There is no coverage under Part B of Medicare which would authorize coverage of the services of physician's assistants as independent practitioners. The only basis found for covering their services would be as services furnished "incident to" a physician's professional service. One of the requirements that must be met for services to be covered as "incident to" a physician's professional service is that the service rendered must be of a kind that is commonly furnished in a physician's office. This limitation restricts coverage to the services or nurses and other assistants that are commonly furnished as necessary adjunct to the physician's

personal in-office service. Thus, the performance by a physician's assistant of services which traditionally have been reserved to the physician cannot be covered under Part B of Medicare even though all the other "incident to" requirements are met. (Reference Part B Intermediary Manual Section 6103 B)

### **Assignment Agreement**

Many physicians have recently inquired as to the effect of the Medicare assignment agreement in view of the current method of processing Blue Shield 65 Extended Claims.

The Bureau of Health Insurance has advised that any excess amount collected from Blue Shield's processing of 65 Extended Claims prior to Medicare Payments should be returned to Blue Shield by the physician.

The manual instructions are specific in that a physician who has accepted assignment would be in violation of his assignment agreement if he collects an amount which exceeds the reasonable charge determination and he is obligated to refund such excess amounts. Section 6018.5 of the Part B Intermediary Manual (which is available for your inspection at the nearest Social Security District Office) clearly indicates that any excess amount paid by the enrollee should be returned to the enrollee and any excess amount paid by private insurance to the insurer.



# The Medical Society of Virginia . . . .

## Minutes of Council

A meeting of the Council of The Medical Society of Virginia was held at Richmond's Executive Motor Hotel on Sunday, September 23.

*Members Present:* Dr. Carl E. Stark, Dr. John A. Martin, Dr. William S. Hotchkiss, Dr. Alvin E. Conner, Dr. Mack I. Shanholtz, Dr. William J. Hagood, Jr., Dr. Raymond S. Brown, Dr. Charles E. Davis, Jr., Dr. Percy Wootton (for Dr. Carlington Williams, Jr.), Dr. George J. Carroll, Dr. Girard V. Thompson, Sr., Dr. H. C. Alexander, III, Dr. James C. Respass, Dr. Thomas L. Lucas, Dr. James Hal Smith and Dr. W. Leonard Weyl.

*Others Present:* Dr. Harry G. Hager, Jr., Second Vice-President; Dr. K. K. Wallace, Jr., Vice-Speaker; Dr. Alexander McCausland, Dr. William R. Hill and Dr. W. Callier Salley, AMA Delegates; Dr. F. Ashton Carmines, Alternate AMA Delegate; Dr. John R. Jones (for Dr. Warren H. Pearse), Executive Associate Dean, Medical College of Virginia; Dr. James W. Craig (for Dr. William R. Drucker), Associate Dean, University of Virginia School of Medicine; Mr. Robert G. Stuart, Executive Secretary, VaMPAC; Mr. James S. Imboden, AMA Field Service Representative; and Mr. William R. Miller, Attorney.

## Southern Medical Reception

Council was advised that Virginia is doubly honored to have Dr. George Carroll as President-Elect of the Southern Medical Association and Mrs. W. Nash Thompson as President-Elect of the Woman's Auxiliary to the Southern Medical Association. Both will be installed during the meeting of that Association in November.

A proposal was made that The Medical Society of Virginia honor Mrs. Thompson and Dr. Carroll with a reception in San Antonio on the evening of November 13. The cost would be approximately \$800.00 and a special appropriation would be required. Dr. Brown moved that the necessary funds be authorized and that the Society arrange a reception in honor of our two distinguished Virginians. *The motion was seconded and carried.*

## VaMPAC Board

Each year at this time Council is requested to elect a Board of Directors for the Virginia Medical Political Action Committee. After reviewing

a list of nominees it was noted that the Board does not contain a Member-at-Large from the Eighth District.

Dr. Thomas L. Lucas was nominated for the vacant spot and it was agreed that there is no conflict of interest where members of Council are concerned.

Dr. Hotchkiss then moved that the following slate be elected. *The motion was seconded and carried.*

## DISTRICT CHAIRMEN

- 1st: Frank Chambers Robert, M.D., Hampton
- 2nd: Clarence B. Trower, Jr., M.D., Norfolk
- 3rd: Henry S. Spencer, M.D., Richmond
- 4th: Arthur A. Kirk, M.D., Portsmouth
- 5th: Girard V. Thompson, Sr., M.D., Chatham
- 6th: Charles A. Young, Jr., M.D., Roanoke
- 7th: Dennis P. McCarty, M.D., Front Royal
- 8th: Alvin E. Conner, M.D., Manassas
- 9th: Walter C. Elliott, M.D., Lebanon
- 10th: Michael A. Puzak, M.D., Arlington

## MEMBERS-AT-LARGE

- 1st: James R. Howerton, M.D., Hampton
- 2nd: Clarke Russ, M.D., Virginia Beach
- 3rd: Harold I. Nemuth, M.D., Richmond
- 5th: Mrs. F. Clyde Bedsaul, Floyd
- 5th: A. Epes Harris, Jr., M.D., Blackstone
- 5th: Thomas H. Holland, Pharmacist, Danville
- 5th: Mrs. Robert D. Keeling, Woman's Auxiliary, South Hill
- 6th: Alexander McCausland, M.D., Roanoke
- 7th: Walter Copley McLean, M.D., Charlottesville
- 8th: Thomas L. Lucas, M.D., Alexandria
- 9th: Cecil C. Hatfield, M.D., Saltville
- 10th: Ira D. Godwin, M.D., Fairfax
- 10th: W. Leonard Weyl, M.D., Arlington

## MEDICREDIT

Although The Medical Society of Virginia has long been on record as endorsing Medigap, AMA has requested that the endorsement be reaffirmed. Dr. Stark called Council's attention to the fact that nine of Virginia's twelve man Congressional delegation have thus far agreed to serve as sponsors of this legislation.



*A motion by Dr. Hotchkiss to reaffirm the Society's previous endorsement of Medicredit was seconded and adopted.*

### House of Delegates Agenda

Dr. Stark reported that every effort is being made this year to streamline the First Session of the House of Delegates to the maximum extent possible. He went on to say that he had given the agenda a great deal of thought and had made a special trip to Richmond for this purpose. Unfortunately, an unforeseen emergency had prevented Dr. Hagood from attending. Dr. Stark pointed out that Dr. Hagood had proposed some changes to the agenda and, in his opinion, Council would be the best judge. He expressed the hope that the first part of the agenda could remain unchanged since he feels strongly that the President should introduce the Society's guests. This procedure is followed in many other state societies and apparently is well received.

Dr. Hagood stated that the agenda is really an excellent one and that the only changes he proposes are for the purpose of complying with the By-Laws and also to give the Presidential Address the attention and recognition it deserves.

Following considerable discussion, it was moved by Dr. Hotchkiss that the agenda be drawn in such fashion as to permit the President to introduce the Society's guests prior to his Presidential Address. *The motion was seconded and carried.*

### Rules of Procedure

Council then turned its attention to reviewing proposed Rules of Procedure for the House of Delegates. Dr. Hagood believed that a number of changes were in order and recommended that the first sentence of the Rules be amended by striking the words "*and the Executive Vice President*". This would bring the Rules into compliance with the By-Laws. *A motion by Dr. Smith to amend the sentence as suggested was seconded and adopted.*

Dr. Hagood then moved that the third paragraph of the Rules be amended by inserting the words "*appointed by the Speaker*" after the word "*Committees*" in the first sentence. The motion would also amend the fourth paragraph by deleting the first three sentences. The motion was seconded.

It was explained that the proposed amendment to paragraph three would simply provide for the appointment of all Reference Committees by the Speaker and that the proposed amendments to paragraph four would eliminate language no longer applicable.

Following some discussion concerning the advisability of Vice-Councilors serving on Reference Committees, it was moved by Dr. Weyl that Dr. Hagood's motion be amended by providing that each Reference Committee be composed of ten members in addition to a Chairman—each Committee to have at least one representative from each Congressional District. The Committees would be made up of ten Councilors, ten Vice-Councilors and nominees to be submitted by the Districts.

After considerable discussion it was moved that the matter be tabled in order that a special committee could consider the problem and report back to Council later in the day. *The motion was seconded and adopted.*

It was then moved by Dr. Hagood that during elections all nominating speeches be limited to three minutes each and seconding speeches to two minutes. The motion would also limit the number of seconding speeches to three. *The motion was seconded and adopted.*

### Continuing Education

Dr. Carroll reported that his Committee on Medical Education had put in a busy year exploring the most effective ways and means of implementing a program of continuing medical education within the Society. In this connection, the Committee has spent considerable time with representatives of Natresources, Inc.—a national firm specializing in the design, promotion and actual operation of continuing education programs.

Mr. Nattress, President of Natresources, Inc., was introduced and briefly covered the proposal of his Company. Following his comments, Dr. Craig expressed the feeling that a cooperative and coordinated approach to continuing education is vitally important for the medical schools and other interested groups. He indicated that there is a need for better communications among all interested parties and that a coordinating committee on continuing education might well be in order. Dr. Jones stated that the Medical College of Virginia was committed to working with other medical schools and The Medical Society of Virginia in establishing sound and effective educational programs.

During the ensuing discussion the thought was expressed that an effort should be made to determine definite needs before agreeing on a specific program. Mr. Nattress agreed that a needs assessment program would most certainly be mandatory and is a definite part of the Natresources proposal.

In discussing the estimated first year cost of the



program—\$1.80 per member—it was brought out that the Company would have a small staff committed for the first several months. It was stressed that the expertise necessary for a program of this kind would be drawn from the membership of the Society. Mr. Nattress definitely favored a supportive approach to continuing education rather than a punitive approach.

A question was then raised as to whether action by Council would be premature since the House of Delegates should make the final decision. It was mentioned that continuing education is a natural by-product of PSRO and that a model PSRO plan currently being put together will very probably provide for a contract with some qualified organization for continuing education activities.

A motion was then offered by Dr. Hotchkiss which would have Council reaffirm its stated position on continuing education and table for the time being the matter of contract negotiations with Natresources, Inc. The motion was seconded.

*It was agreed that the question should be divided and that part calling for reaffirmation of the Society's stated position on continuing education was carried.* (Dr. Carroll requested that he be recorded as not voting.) That part of the question which would table the matter of negotiating a contract with Natresources was lost.

It was then moved by Dr. Carroll that the recommendation by the Committee on Medical Education to develop a pilot program for continuing education be approved and that Natresources, Inc., or an equivalent educational firm, be employed to develop the program with The Medical Society of Virginia as sponsor. He further moved that such approval by Council be forwarded to the House of Delegates for final action. *The motion was seconded and carried.*

### **1974 Travel Program**

Dr. Martin reported that July 8 has been selected as the departure date for the 14-day trip to Austria, Switzerland and West Germany. This particular trip is being arranged through INTRAV.

A shorter trip will also be tried in 1974 and will feature a 7-day excursion to London. The departure date will be February 27.

### **PSRO**

Dr. Stark recently received a letter from the Louisiana State Medical Society requesting that Virginia's Congressmen be urged to support a bill introduced by Louisiana Congressman

Rarick for the repeal of those provisions of Public Law 92-603 having to do with PSRO.

Although there was considerable support for the Louisiana request, there was some question as to whether such definite action should be taken at this time. Dr. Respass moved that the matter be tabled in view of the thorough discussion of PSRO surely to be conducted by the House of Delegates in October. *The motion was seconded and adopted.*

A motion by Dr. Lucas to remove the matter from the table was seconded but lost.

At this time Dr. Stark reported that he had recently met personally with Dr. George Gardiner, Medical Director of Region III of HEW. He expects a letter from Dr. Gardiner within the next few days and will keep Council advised of all developments. Dr. Stark went on to express the feeling that it is of the utmost importance that medicine not lose the very first PSRO battle in which it engages. For this reason, it is most important that Virginia be permitted to establish a statewide PSRO with satellite divisions.

In answer to a question as to what the Society might do should its proposal be rejected by HEW, Dr. Stark called attention to a resolution recently adopted by the Kentucky Medical Association. This resolution takes into account the possibility that the Kentucky proposal might be either rejected or amended and provides that, should this occur, any new plan must be approved by the House of Delegates at a regular or, if necessary, special called meeting. The resolution also requested that an effort be made to inform the public and legislators of the potential deleterious effects of the law on the quality, confidentiality, and cost of medical care. It went even further and requested the Kentucky House of Delegates to petition the State's Congressional delegation to work for the repeal of PSRO.

### **Bicentennial of American Revolution**

The Society has been urged by several of its members to appoint a special Bicentennial Committee for Celebration of the American Revolution. The Committee would determine what role the Society should play in the celebration and suggest such projects as it might believe advisable and worthwhile.

*A motion by Dr. Brown calling for the appointment of such a Committee was seconded and adopted.*

### **Jane Todd Crawford**

On December 25, 1809, Dr. Ephraim McDowell performed what is referred to as the first



ovariotomy. The surgery took place at Dr. McDowell's home in Danville, Kentucky. It happens that Dr. McDowell was a native of Rockbridge County and his patient was Jane Todd Crawford, who resided at Todd's Mill on Whistle Creek.

Mrs. W. Nash Thompson, President-Elect of the Woman's Auxiliary to the Southern Medical Association, has expressed considerable interest in having an historical marker placed at Old Monmouth Church—within sight of the Todd birthplace. Mr. Osburn discussed the project and stated that no Society funds would be involved.

It was then moved by Dr. Lucas that the Society endorse Mrs. Thompson's efforts in connection with the proposed marker. *The motion was seconded and carried.*

### **Legislation**

Mr. Osburn reported that the Legislative Committee had recently met in Richmond for the purpose of putting together a legislative package for the House of Delegates. He reviewed a number of the subject areas and stated that a special legislative package would be ready for the delegates at Norfolk.

Council was reminded that, during its meeting of July 8, endorsement was accorded a resolution adopted by the State Board of Health which emphasized that the disposal of human waste, solid waste and the protection of drinking water supplies are primary health matters and should remain under the control of the Department of Health.

Dr. Stark reported that he had, in keeping with a recommendation of Council, appointed a Committee on Emergency Medical Services. This Committee will undoubtedly make many contributions during future sessions of the General Assembly.

### **Maternal Deaths**

For a number of years it was the practice of the Committee on Maternal Health to pay those physicians (Residents in most cases) investigating maternal deaths a fee of \$50.00 in addition to expenses. In recent years, however, very little has been spent for this purpose—simply because Committee members themselves have carried most of the load. It has now been recommended once again that the Society authorize payment of a \$50.00 fee—plus expenses—for such investigations should they become necessary.

A question was raised as to whether such expense should properly be borne by the Society. It was the consensus that maternal death investi-

gations represent another form of peer review and that physicians should do the job themselves if at all possible.

*A motion by Dr. Davis to approve the payment of \$50.00 per case—plus expenses—was seconded and adopted.*

### **Phase IV**

It was learned that physicians in Northern Virginia—particularly Fairfax County—are interested in having The Medical Society of Virginia join with them in a class action suit seeking relief from the rigid and discriminatory regulations of Phase IV—as determined by the Cost of Living Council. The AMA position was discussed and there was considerable doubt that a class action suit would be undertaken at that level.

Dr. Hagood moved that the matter be referred to Mr. Miller for necessary legal advice and guidance and considered further during Council's meeting on October 18. *The motion was seconded and carried.*

### **Prayer Breakfast**

Council was reminded that a Prayer Breakfast has been arranged for the upcoming Annual Meeting and that all members should do everything possible to assure a good attendance. An excellent program has been arranged and the Breakfast could well prove one of the real highlights of the meeting. The hope was expressed that all members of Council will plan to attend.

### **Executive Sessions**

Inquiries have recently been received from some newspapers concerning press coverage of meetings of the House of Delegates and Reference Committees. There was a wide difference of opinion concerning the advisability of conducting open sessions and some suggested that the news media be provided releases in lieu of open meetings. It was pointed out that The Medical Society of Virginia is a private organization and, consequently, is not saddled with obligations imposed on public bodies. Brought out also was the fact that where open sessions might be advisable in some sections of the State, the reverse might well be the case in others.

It was then moved by Dr. Weyl that meetings of the House of Delegates and Reference Committees during the upcoming Annual Meeting be closed. The motion was seconded but failed adoption. (Dr. Davis requested that his vote for closed sessions be recorded.)

It was then moved by Dr. Hotchkiss that the



media be invited to attend the First and Second Sessions of the House of Delegates. *The motion was seconded and adopted.* (Dr. Davis requested that his negative vote be recorded.)

### **Insurance**

Council was advised that the time has come for the Society's multicover insurance package to be renewed and that certain recommendations have been received. It has been recommended that coverage on the headquarters building be increased to \$106,000.00—a figure more in line with today's construction costs. It was also recommended that the fidelity bond be retained for two members rather than switched to a blanket coverage at additional expense. It was agreed that the risk is, for all practical purposes, minimal—almost to the point of being nonexistent.

*A motion by Dr. Martin to approve the coverage as presented was seconded and adopted.*

### **Medical Staff Appointments**

The attention of Council was called to the fact that many applications for appointment to hospital medical staffs contain check lists which could possibly pose problems with reference to malpractice suits. The applicant is required to check those services, procedures, etc. which he considers himself qualified to provide and perform. Fear has been expressed that should, for any reason, it become necessary for him to undertake a procedure which he has not checked, he would place himself in a somewhat precarious position.

It was also brought out that some applications require the applicant to list the amount of his professional liability coverage, the name of the carrier and policy number, and other pertinent information. Some members have objected to having to provide this information—feeling that it could pose a problem should it fall into the wrong hands.

Although there were many who believed that professional liability insurance information is necessary where staff appointments are concerned, it was agreed that further study is in order.

Dr. Conner moved that the two questions be referred to an appropriate committee for study and recommendations. *The motion was seconded and adopted.*

### **Lobbying**

A suggestion had been made that The Medical Society of Virginia consider the advisability of requesting Mr. Robert Stuart to register as a

lobbyist for VaMPAC. In this way he would be in a good position to strengthen the medical lobby should such need arise.

There followed a great deal of discussion concerning the pros and cons of the matter—the main question being concerned with how close the Society can be tied to what is essentially a political organization. It was pointed out that the Society must be very careful not to violate Federal statutes regulating political activities of corporations.

Dr. Martin then moved that the matter be tabled. *The motion was seconded and adopted.*

### **Liaison Committee**

It was recommended that the Society join with the State Board of Medicine and State Board of Pharmacy in setting up a Committee comprised of representatives of the three organizations. The Committee would be concerned with the many matters and problems of interest to all three organizations.

Dr. Carroll stated that such a Committee would be of tremendous assistance to the Board of Pharmacy as well as the Board of Medicine—where certain drug problems are concerned. He pointed out that both Boards are investigating more and more alleged violations of the State's Drug Act.

*A motion by Dr. Carroll which would have the Society cooperate in setting up such a Committee was seconded and adopted.*

### **POWs**

A number of component societies have responded to an inquiry concerning Virginia physicians who have at any time been prisoners of war. Thus far, five former POWs have been identified and it is believed that there are a number of others practicing in the State.

It was moved by Dr. Hagood that special distinguished service certificates be prepared for those former POWs known at this time and presented at the Annual Meeting if at all possible. *The motion was seconded and carried.*

### **VaMPAC Contribution**

The Medical Society of Virginia, for the past several years, has contributed \$12,000 to the Educational Fund of VaMPAC. This contribution makes it possible for the money obtained through membership dues to be used for candidate support. VaMPAC's Executive Committee has again requested a similar contribution for 1973-74.

*A motion by Dr. Hotchkiss to include in the 1973-74 budget a contribution of \$12,000 to Va-*

*MPAC's Educational Fund was seconded and adopted.*

### **Nutrition Seminar**

Dr. Stark reported that he had received a letter from the Chairman of Health Education for the Woman's Auxiliary, recommending that the Society purchase a supply of booklets for distribution at the Annual Meeting in Norfolk. The booklet contains the proceedings of a program on nutrition sponsored in April by the Auxiliary and a number of other interested organizations. The cost, based on 50¢ per copy, would mean a total expenditure of approximately \$350.00.

While it was agreed that the booklet had much to recommend it, it was also agreed that an effort must be made to keep the cost of the meeting within acceptable limits. Consequently, it was moved by Dr. Respass that the Chairman of Health Education be thanked for her interest and suggestion and provided an explanation as to why the Society will not be able to distribute the booklets at this time. *The motion was seconded and carried.* (Dr. Weyl requested that his vote in negative be recorded.)

### **Rules of Procedure—Continued**

The special committee which had been requested to prepare a recommendation concerning the Rules of Procedure then presented its report. It was recommended that the three Reference Committees be composed of seven (7) members each—including the Chairman. All Committee members would be appointed by the Speaker—with recommendations from the Districts. It was also recommended that a Rules Committee of the House be set up for the purpose of reviewing the

Rules of Procedure in the future. In order to accomplish this, it would be necessary to amend Article V, Section 1 of the By-Laws by deleting the last sentence which delegates to Council the responsibility of reviewing the Rules of Procedure between sessions of the House.

*A motion by Dr. Lucas approving the recommendations of the special committee was seconded and adopted.*

### **FDA**

Dr. Davis reported that the FDA had rescinded its action to remove sulfasuxidine from the market and pointed out that this could probably be attributed in large part to actions taken by The Medical Society of Virginia and other groups. It was recalled that Council, on January 7, had objected strongly to an FDA policy of removing medications from the market without prior consultation with those physicians who comprise the practicing community. As a result, this objection was transmitted to FDA and letters were also written to Virginia's Congressional delegation. All members of the delegation supported the Society's action.

### **High Blood Pressure**

There followed a brief discussion concerning the National High Blood Pressure Educational Program and *a motion by Dr. Lucas to support the program was seconded and adopted.*

There being no further business, the meeting was adjourned.

ROBERT I. HOWARD, *Secretary*

APPROVED:

CARL E. STARK, M.D., *President*

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## **LET'S REMINISCE!**

### *The Metric System*

Has so soon to become the popular system in medicine for prescriptions, etc., that colleges about to begin their courses this fall should see to it that it is taught the student. It has been adopted or legalized by the principal nations of the world. It was legalized by Great Britain in 1864 and by the United States in 1866. The weights and measures of the U. S. Pharmacopoeia are now given in this metric system. It has been used in the U. S. Marine Hospital Service for years, and has lately been made compulsory in the U. S. Army.

(Virginia Medical Semi-Monthly, Vol. I, June 26, 1896)



## Woman's Auxiliary . . . .



MRS. DONALD F. FLETCHER, JR.

### **New President**

Fletcher is a well-known and distinguished name in the annals of Virginia medicine. On the Eastern Shore there were many doctors of this name who were not only eminent physicians but greatly beloved citizens.

Today the Woman's Auxiliary to The Medical Society of Virginia is most fortunate indeed to welcome as its incoming president another Fletcher, Mrs. Donald F. Fletcher, Jr., nee Virginia Richards of Roanoke. Daughter, granddaughter, niece, great-niece and cousin of doctors and herself a former medical student (she attended medical school for one year at the Medical College of Virginia), she has a background that makes her an especially appropriate choice for the presidency.

Virginia Carolina Richards Fletcher, the daughter of Dr. Charles Carr Richards and Susie Daniel Madison Richards, was born January 21, 1919, in Beaufort, South Carolina, while her father was serving as Lt. (MC) USNR at Parris Island, S. C. After her graduation from high school in Roanoke, she attended Roanoke College in Salem for one year and then transferred to the University of Alabama, from which she was graduated in 1940. There

she was a member of Kappa Kappa Gamma, and there she met her future husband, Donald Fletcher, a member of Phi Gamma Delta Fraternity.

One of the first group of girls admitted to Civilian Pilot Training Program in the United States, Virginia received a private pilot's license in her senior year and subsequently joined American Airlines as a stewardess in New York.

On March 13, 1943, she was married to Ensign Donald F. Fletcher, Jr., (SC) USNR. After World War II he entered Roanoke College as a pre-med student. He received the M.D. degree from the Medical College of Virginia in 1951, interning later at Portsmouth Naval Hospital and serving one year at Anacostia Naval Air Station. A private practitioner since 1954 on the Eastern Shore of Virginia, he is the fifth generation of doctors in his family to practice in this area.

Virginia's activities are numerous and diverse. She is a sportswoman, having won many trophies in trapshooting and was State Champion in Junior Ladies and later Senior Ladies divisions. A member of the old Roanoke Gun Club, she optimistically buys a hunting license each year although she has little time for hunting. Her activities have also contributed a great deal to her State: she has been active in Scouting and in the PTA, having served on the Accomack County Council of the latter; she has been Past President of the Atlantic District Woman's Club; presently she is Historian of the Eastern Shore of Virginia Chapter, DAR and Historian of the Susan Constant Committee of Colonial Dames in the Commonwealth of Virginia; a member of the Garden Club of the Eastern Shore; and for the past two years she has served as Vice-President of the Eastern Shore Historical Society (member of the Board since 1969).

Religious activities include service as a member of the choir and of the vestry of Emman-

uel Episcopal Church, Jenkins Bridge, the church of Dr. Fletcher's ancestors; she is one of the first two women elected to this vestry.

No stranger to the Auxiliary, Virginia since 1954 has served as chairman of many local committees: as secretary and as president in 1956-1957 and again in 1966-1967. On the State level, she was Philanthropic Chairman, serving on the Ad Hoc Committee (Leigh-Hodges-Wright Fund); she has been a member of the Memorial Fund since its inception; Corresponding Secretary; Recording Secretary for two years; Second Vice-President and Health Manpower Chairman; President-Elect and Membership Chairman.

The Fletchers have four children: Donald,

III, 28; Charles Richards, 22; Richard Ashton, 20; and Susan Madison, 15. Their mother, sportswoman, former pilot, stewardess and medical student, executive and administrator *par excellence*, claims one hobby—cooking and collecting cookbooks!

The Woman's Auxiliary to The Medical Society of Virginia is to be congratulated on its exceptionally good fortune in having as its President for 1973-1974 a woman as talented, versatile and gracious as Virginia Richards Fletcher.

—MARY FITCHETT FOSQUE

Charter Member, Woman's Auxiliary to the Northampton-Accomack Medical Societies

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION  
(Act of August 12, 1970: Section 3685. Title 39. United States Code)

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7. Owner  
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There are no bondholders, mortgagees and other security holders.
9. For completion by nonprofit organizations authorized to mail at special rates (Section 132.122, Postal Manual) The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes have not changed during preceding 12 months.
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1. Sales through dealers and carriers, street vendors and counter sales -----		
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G. Total (sum of E & F—should equal net press run shown in A) -----	4878	4921

I certify that the statements made by me above are correct and complete—E. Spencer Watkins, Managing Editor.



### **Our New President: John A. Martin, M.D.**

**J**OHN ALBERT MARTIN, M.D., was born in New Bethlehem, Pennsylvania, on 19 April 1918. He was educated at New Bethlehem High School, received a B.S. degree from Grove City College in 1940 and an M.D. degree from Jefferson Medical College, Philadelphia, in 1944. He interned at Robert Packer Hospital, Sayre, Pennsylvania, then entered military service in 1944, receiving training at Carlisle Barracks, Carlisle, Pennsylvania. He was next stationed at Miller Field, Staten Island, New York, as a Hospital Train Commander. In August 1945, he was assigned to the 25th Infantry Division in the Philippines and later served as Commanding Officer, 25th Medical Battalion, 25th Infantry Division in the Army of Occupation at Osaka and Nagoya, Japan. He was separated from service as a Captain in the Medical Corps in October 1946 and spent the next three years as a Radiology Resident at the Hartford Hospital, Hartford, Connecticut. He then spent a year as a Teaching Fellow-Harvard Medical School, Peter Brent Brigham Hospital in cardiac radiology, completing that training in 1951. He became a Diplomate of the American Board of Radiology in 1950.



JOHN ALBERT MARTIN, M.D.

Dr. Martin began practice in Roanoke, in 1952 and for twenty-one years has been in the private practice of Radiology. Currently he is President of Radiology Associates of Roanoke and Chief of Radiology at the Roanoke Memorial Hospitals. He is a staff member at the Community Hospital of Roanoke Valley and Shenandoah Hospital both in Roanoke and a consultant at the U. S. Veterans Administration Hospital, Salem. He became a Fellow of the American College of Radiology in 1965.

Dr. Martin has been active in organized medicine and politics: he was Chairman of the Local Arrangements Committee for the 1963 meeting of The Medical Society of Virginia and First Vice-President of the Society in 1963-64. He was President of the Roanoke Academy of Medicine 1967-68 and President of the Virginia Chapter, American College of Radiology in 1968. He has served on the Council of The Medical Society of Virginia since 1968 and on the Judicial, Publication, and Medicare Committees of this Society. He was on the first Board of Directors of VaMPAC. He served as a Delegate to the 1964 Republican National Convention and was active for

years prior to VaMPAC in Congressional Candidate support. He is well known for his active support of candidates in local and state political campaigns. He has held several responsible positions in the American College of Radiology.

Dr. Martin was very influential in having the Medicare law permit hospital based physicians to bill fees separately and has stressed the importance of physicians not accepting Medicare assignments. He was also one of the first physicians in Virginia to work for and promote the law permitting professionals to act as corporations and, thus, having a means, like other citizens, of setting aside money for retirement.

Dr. Martin is a strong advocate of the private practice of medicine simply because he believes it is the best method of delivering good medical care to the citizens of the United States. He can be defined as a conservative in all things but he is a progressive conservative; he deplores government bureaucratic control of any phase of our lives but recognizes that progress can best be achieved by cooperation among all people. He recognizes the inevitable association between government and doctors and he reluctantly accepts government help while hoping to keep government interference to a minimum.

John Martin married Joan A. Coyne of Bridgeport, Connecticut, in 1948. They have two children, Mary Patricia, a junior at the University of Miami and John Albert, Jr., a junior at Patrick Henry High School, Roanoke. When Jack has time he is at his Smith Mountain Lake home water skiing, or is playing golf, or hunting or fishing, all of which he does very well and all of which he enjoys.

The physicians of Virginia and The Medical Society of Virginia are fortunate indeed to have such a well rounded, well informed, experienced representative as President. He is never rattled in even the most abrasive encounters with those who would change the American way in medicine. We can depend on him always to be well informed and prepared to represent us well, and to work for any sound progressive programs that can be developed.

CHARLES D. SMITH, M.D.



## **Calendar of Events**

SOUTHERN MEDICAL ASSOCIATION—Annual Meeting—San Antonio, Texas—November 12-15, 1973.

MEDICAL ASPECTS OF SPORTS—National Conference—Sponsored by American Medical Association—Royal Inn—Anaheim, California—December 1, 1973.

AMERICAN MEDICAL ASSOCIATION—Clinical Session—Anaheim, California—December 1-5, 1973.

CONFERENCE ON TEAMWORK FOR THE HANDICAPPED CHILD—Sponsored by the Virginia Council on Health and Medical Care—Hilton Inn—Virginia Beach—December 9-11, 1973.

LOMBARDI CANCER SYMPOSIUM—An Interdisciplinary Symposium sponsored by Georgetown University School of Medicine—Basic Science Building—Georgetown University School of Medicine—Washington, D.C.—January 18, 1974.

AMA NATIONAL LEADERSHIP CONFERENCE—Marriott Motor Hotel—Chicago—January 25-27, 1974.

AMA-AMPAC PUBLIC AFFAIRS WORKSHOP—Washington-Hilton Hotel—Washington, D.C.—March 15-17, 1974.

TRI-STATE MEDICAL ASSOCIATION—Annual Meeting—Hotel Roanoke—Roanoke—March 21-24, 1974.

NATIONAL CONFERENCE ON RURAL HEALTH—Sponsored by AMA—Detroit-Hilton Hotel—Detroit, Michigan—April 25-26, 1974.

SEABOARD MEDICAL ASSOCIATION—Annual Meeting—Holiday Inn—Nags Head, North Carolina—June 13-16, 1974.

\* \* \* \* \*

The Medical Society of Virginia maintains a registry of medical meetings and programs of interest to Virginia physicians. You can help by keeping us advised of any meetings scheduled in your area. This will not only help others avoid conflicts but also provide helpful information on opportunities for continuing education.

## **New Members.**

The following members were received into The Medical Society of Virginia during the month of August:

John A. Cardea, M.D., Richmond  
Beth Ann Collins, M.D., Roanoke

Thomas Stewart Dina, M.D., Vienna  
Antonio T. Donato, M.D., Roanoke  
William Sliman Elias, M.D., Roanoke  
Jack C. Fisher, M.D., Charlottesville  
Michael Benjamin Ford, Sr., Big Stone Gap  
Bijan Ghovanlou, M.D., Rockville, Maryland

Charles J. Goldman, M.D., Norfolk  
 Patrick Joseph Hennelly, Jr., M.D., Norfolk  
 George Durham Henning, M.D., Roanoke  
 John Omohundro, Jr., M.D., Roanoke  
 Ann Jeanette Johanson, M.D., Charlottesville  
 Lloyd Irvin Kramer, M.D., McLean  
 James Larry Mathis, M.D., Richmond  
 Ali Moghtader, M.D., Woodbridge  
 William Singleton Ogden, M.D., Danville  
 John Robert Olson, Jr., M.D., Hampton  
 Kelly Ennis Overcash, M.D., Danville  
 J. A. Pettigrew, M.D., Bristol, Tennessee  
 Manuel O. Sanz, M.D., Williamsburg  
 Graenum Robert Schiff, M.D., Richmond  
 Jose Lim Sievert, M.D., Arlington  
 Harold George Stacy, M.D., Danville  
 Evelyn Clark Wade, M.D., Roanoke  
 Earl Dowdy White, II, M.D., Hampton

#### **Dr. Thomas McP. Brown,**

Arlington, presented a paper at the 13th International Congress of Rheumatology at Kyoto, Japan, on October 5th. He is director of the Arthritis Institute of the National Orthopaedic and Rehabilitation Hospital.

#### **Dr. Nathaniel H. Wooding,**

Halifax, has been ordained to the diaconate in the Church of Redeemer, Richmond. He has been assigned to Emmanuel Church, Mountain Road, in Halifax County.

#### **Gill Memorial Refresher Course.**

The 46th Annual Spring Refresher Congress for Eye, Ear, Nose and Throat specialists, sponsored by Gill Memorial Hospital Foundation, Roanoke, will be held at the Grapetree Bay Hotel on St. Croix in the Virgin Islands, January 13-18, 1974.

Information may be obtained from C. T. Akers, Jr., Administrator, P. O. Box 1789, Roanoke, Virginia 24008.

#### **The Virginia Thoracic Society**

Is sponsoring a day-long seminar on Pulmonary Emboli on November 29th at the George Ben Johnston Auditorium, Medical College of Virginia. The seminar will cover

the practical aspects of the diagnosis and treatment. Among the featured speakers will be Dr. Myron Stein, Professor of Medicine, University of Southern California; Dr. William Bell, Assistant Professor of Medicine at Johns Hopkins and Director of Coagulation Laboratories; and Dr. John L. Patterson, Research Professor of Medicine at the Medical College of Virginia.

Full information may be obtained from the Virginia Thoracic Society, 311 South Boulevard, Richmond.

#### **Gastrointestinal Radiology.**

The tenth annual course in Radiology, sponsored by the Department of Radiology of the Medical College of Virginia, will be held March 10-14, 1974, at the Williamsburg Conference Center, Williamsburg. This course will provide up-dated information on a wide variety of topics in gastrointestinal radiology. It is designed for the general radiologist and interested allied physicians in other medical specialties.

For further information, write to Gary G. Ghahremani, M.D., MCV Station 728, Richmond, Virginia 23298.

#### **Health and Nutrition Examination Survey.**

The U.S. Health and Nutrition Examination Survey of the Public Health Service will shortly be conducting operations in Roanoke County. The initial phase will begin on January 7, 1974, with interviewers from the U.S. Bureau of the Census calling on selected households in the sample area to obtain certain demographic information about each household and the individuals who live in them. Following this, approximately 388 persons between the ages of 1 and 74 years will be selected by a statistical sampling process to participate in the examinations. Examinations will be conducted during the period January 26 through February 21, 1974, in the survey's mobile examination center.

The survey has a dual purpose—to measure the nutritional status of the United States pop-



ulation between the ages of 1 and 74, and to obtain information on the health status and medical care needs of persons between 25 and 74 years of age. The examination is designed primarily to collect statistical data on health and medical care needs and nutritional status. Results of the examination are not disclosed to the examinee, but a report of findings of the examination is sent to the person's physician and dentist upon request.

### **Medical Building—Manassas, Virginia.**

Design your own suite in the beautiful new four story Doctors' Center. Best location adjacent to open staff general hospital and doctors' park. Manassas is located about 20 miles from downtown Washington, in the middle of the fastest growing county. Present 165 bed hospital is projected to expand to 500 beds within five to six years. Unique opportunity for GP or all specialties in this prime location.

Inquiries to L. T. Gravatte, 5515 Cherokee Avenue, Alexandria 22312. Phone (703) 354-8500. (Adv.)

### **Emergency Room Physician.**

Accredited 280 bed progressive general hospital in beautiful Huntington, West Virginia. Excellent income and working conditions. Send resume to Assistant Administrator, Cabell Huntington Hospital, 1340 Sixteenth Street, Huntington, West Virginia 25701. (Adv.)

### **Staff Physician**

For active out-patient/admitting service. Very strong staffing support. U. S. licensure required. 875-bed GM&S hospital affiliated with medical school. Excellent retirement and leave benefits. Nondiscrimination in employment. Contact chief of staff, VA Hospital, Richmond 23249. Phone (804) 233-9631, ext. 202. (Adv.)

# Obituary . . . .

## **Dr. James Keith Morrow,**

Radford, died September 25. He was sixty-eight years of age and received his medical degree from the University of Arkansas in 1930. Dr. Morrow retired as vice-president of St. Albans Psychiatric Hospital in 1969, having served for twenty-eight years as staff physician. He was a former president of the Neuropsychiatric Society of Virginia and a former trustee of the National Association for Private Psychiatric Hospitals. Dr. Morrow had been a member of The Medical Society of Virginia since 1944.

His wife, a son, a daughter and a step-daughter survive him.

## **Dr. Kasper Kaufman,**

Wakefield, died September 25, at the age of sixty. He was a graduate of the Middlesex University School of Medicine, Massachusetts, in 1937. Dr. Kaufman had practiced in Wakefield for twenty-five years and was a member of the emergency department of the Petersburg General Hospital. He had served with the medical corps during World War II with the rank of Major. Dr. Kaufman was a past president of the Wakefield Ruritan Club. He was also a past president of the Fourth District Medical Society and had been a member of The Medical Society of Virginia for twenty-eight years.

His wife, a son and a daughter survive him.

## **Dr. Clarence Cameron Kress,**

Orange, died September 21. He was eighty-nine years of age and a graduate of Washington University, St. Louis, in 1905. Dr. Kress was a retired Captain, U. S. Navy, having served forty-one years in the Navy. He served as director of the Orange-Madison-Greene-Culpeper Health Department for ten years. Dr. Kress was a member of the Loyal Legion, the U. S. Naval Academy Foundation and the Medical Club of Virginia. He had been a

member of The Medical Society of Virginia for twenty-five years and was made a Life Member in 1955.

A daughter and three grandchildren survive him.

## **Dr. Jerome Frost Smith,**

Richmond, died September 21. He was sixty-six years of age and a graduate of Stanford University School of Medicine in 1934. Following his graduation, Dr. Smith was commissioned in the Navy and served through World War II after which he located for practice in San Diego. He rejoined the Navy in 1956 and was appointed chief of medical service at Camp Pendleton and later at the Naval Hospital in Corpus Christi. In 1966, Dr. Smith was appointed medical director of Richmond Memorial Hospital from which he retired last January. He had been a member of The Medical Society of Virginia since 1967.

His wife, two sons and a daughter survive him.

## **Dr. Kohn.**

On June 30, 1973, at the age of 70, Dr. Theodore Kohn died of a myocardial infarction. He had just completed his hospital rounds and was preparing for a short visit with his son.

Dr. Kohn graduated from the University of Maryland School of Medicine in 1928. He served his internship and residency at Sinai Hospital, Baltimore.

In 1930, he married Henriette Greenbaum, and then began the practice of medicine in Richmond. He continued to practice here until his death, except for a period of service with the Medical Corps, U. S. Army, during World War II. He served with the rank of Captain, with duty in Iran.

Dr. Kohn was a member of the Richmond Academy of Medicine, The Medical Society of Virginia, American Society of Internal Medicine, Virginia Society of Internal Medicine, and Richmond Society of Internal Medicine. He served on the staff of Johnston-Willis and Stuart Circle Hospitals early in his career, and at the time of his death was on the staff of St. Mary's Hospital,



Richmond Memorial Hospital, and Retreat Hospital.

He faithfully served his synagogue, Beth Ahabah Congregation, his patients, and his community. For over twenty years he was the physician for Friedman-Marks Clothing Manufacturers.

Dr. Kohn was a kind, sympathetic physician and above all a gentleman, whose dedication to his chosen profession was cherished by all his patients and colleagues.

He was a devoted family man. His widow, son, and daughter will have fond memories of a kind and devoted husband and father.

NOW, THEREFORE BE IT RESOLVED: That this testimony of regret of the loss of our loved and esteemed colleague be written in the minutes of the Richmond Academy of Medicine, and The Medical Society of Virginia, and that a copy be sent to the family.

MARION L. RICE, JR., M.D.

### **Dr. Whitehead.**

Dr. David Calloway Whitehead, Norfolk, died Monday, September 17, 1973 at the age of 57.

Dr. Whitehead was the son of Joseph and Ruth Tredway Whitehead of Chatham, Virginia, where he was born and received his early education. He received his B.S. degree from George Washington University, and an M.D. Degree in 1942 from the Medical College of Virginia. He then interned at Norfolk General Hospital and entered the U. S. Air Corps upon the completion of his internship. During his three years service, he served his country ably and well, being discharged as a Major.

In 1946 he opened his office for the general practice of medicine in Danville. Three years later he moved to Norfolk, continuing his service as a family practitioner. During these years David Whitehead developed the reputation of being a dedicated, compassionate physician and friend, both to his patients and to his colleagues. His understanding of the art and science of medicine was profound. His dedication to his patients, his family, and his church became an example for his contemporaries.

In 1954, Dr. Whitehead gave up his family practice to return to residency in ophthalmology at the Episcopal Eye, Ear, Nose and Throat Hospital, in Washington, D. C. His interest and enthusiasm in ophthalmology were infectious, attracting other physicians to the field. In 1956, with his period of training completed, he returned to begin the practice of ophthalmology in Norfolk. He remained in this until illness kept him from doing the thing he loved most, taking care of people.

He was an active member of the Medical Staff of all the Norfolk hospitals, including, DePaul, Leigh Memorial, Children's Hospital, and Norfolk General. He was very active in maintaining the Eye Clinic at Norfolk General. He was a member of the Norfolk County Medical Society, The Medical Society of Virginia, American Medical Association, and Southern Medical Association. He was a Diplomate of the American Board of Ophthalmology, and a Fellow of the American Academy of Ophthalmology and Otolaryngology. He was secretary to the Tidewater Society of Ophthalmology and Otolaryngology.

He was appointed by the Governor of Virginia to the State Board of Opticians and became its Vice Chairman.

Dr. Whitehead is survived by his widow, two daughters, a son, Dr. David Calloway Whitehead, Jr., four sisters and two brothers. Dr. Whitehead was an affectionate and devoted father and husband. He was a deeply religious man whose love of God shown through him. He was a member of the Larchmont Methodist Church and dedicated much of his energies to its support. His love of his fellow man and his dedication to their service was an outstanding attribute.

WHEREAS, the Norfolk County Medical Society has lost a distinguished member and beloved friend and,

WHEREAS, the community has lost a dedicated and outstanding physician,

BE IT THEREFORE RESOLVED, that the Norfolk County Medical Society enter in its minutes these Resolutions and convey to his family its heartfelt sympathy and,

BE IT FURTHER RESOLVED, that a copy of these Resolutions be sent to his family, and to The Medical Society of Virginia for publication in the Virginia Medical Monthly.

GEORGE H. M. RECTOR, M.D.

H. DESMOND HAYES, M.D.

HARRY B. TAYLOR, JR., M.D.

### **Dr. Emerick.**

John W. Emerick was born on September 28, 1919, in Baltimore, Maryland. He died on May 18, 1973.

Dr. Emerick received his undergraduate degree at the University of Virginia and went on to Columbus University where he obtained a Law degree in 1941. He later returned to the University of Virginia and received a medical degree in 1957. He interned at Winchester Memorial Hospital in Winchester. He obtained further experience in pulmonary diseases from the Blue

Ridge Sanatorium at Charlottesville for an additional year.

Before beginning family practice in Richmond in 1970, he had previously practiced in Berryville, where he was on the Staff at Winchester Memorial Hospital. He also had practiced in Dumfries from 1967 until he came to Richmond.

He had extensive service with the Federal government, serving on the Bureau of the Census and National Office of Vital Statistics. His military service covered the United States as well as the European Theater from 1941 to 1946 during World War II.

He was a member of Sigma Delta Kappa legal fraternity and a member of the District of Columbia Bar Association.

Memberships in professional societies included the Virginia Academy of General Practice, Medical Society of Northern Virginia, The Medical Society of Virginia, Southern Medical Association, the American Medical Association, and Richmond Academy of Medicine.

Dr. Emerick is fondly remembered for his thorough and diligent approach to patients' problems. His compassionate and sympathetic manner gained him respect among his patients and his peers.

He had a large geriatric patient following and was active on the Richmond Memorial Hospital medical staff.

He was a tireless practitioner of the healing arts.

THEREFORE, BE IT RESOLVED: That the medical profession in this community has lost this most remarkable man and physician, and that the Richmond Academy of Medicine recorded sorrow at the death of John W. Emerick.

BE IT FURTHER RESOLVED: That these remembrances of his life be recorded with the minutes of the Academy and that a copy be sent to the members of his family; and a copy be sent to the editor of the Virginia Medical Monthly for publication.

JAMES F. OATES, III, M.D., *Co-Chairman*  
JAMISON G. BUSTON, II, M.D., *Chairman*



### Guest Editorial . . . .

#### **A Third Edition of Vulbs Just Off the Press!**

**T**HE MEDICAL LIBRARY AT THE UNIVERSITY OF VIRGINIA has just issued the third edition of its *Virginia Union List of Biomedical Serials*. It is a weighty tome of 281 pages and contains no less than 5,188 entries of biomedical journals. All these data were assembled in machine-readable form and have been arranged according to programs developed by computer experts in the Computer Center facility of the University.

The question may be asked: Why is this effort necessary and can it be of use to the health practitioner in cities and small towns of Virginia?

As any active practitioner of the health sciences knows only too well, there has been an almost exponential growth of the biomedical literature during the past decade. Today no individual and no individual library can hope to have all materials in their respective collections which may be needed at any particular time by a physician, nurse, or other worker in the health sciences. The obvious solution for procuring materials which are not available is to borrow from another source. For several decades now there has been close, though informal, interlibrary cooperation between medical libraries in Virginia. Smaller medical libraries have felt free to request books and journals from their larger and more affluent cousins. The libraries of the two state medical schools in particular have served as resources for the small hospital libraries.

In 1970, the new Virginia Medical Information System (VAMIS) created a more formal network for the exchange of biomedical information. This effort was underwritten with funds from the Virginia Regional Medical Program during the first three years of its life. Plans are being made now for the augmentation of this program by a system of regional medical libraries under the auspices of the National Library of Medicine. These activities have been strengthened by the use of the teletype network sponsored by the Virginia State Council of Higher Education.

Now that a more or less formal network for the exchange of journal articles, books, and other materials has been established, techniques must be developed to provide the seeker of information with an efficient way of find-

ing it. The *Virginia Union List of Biomedical Serials* is an effort in that direction. It contains in its latest edition the serial holdings of 23 biomedical libraries in Virginia, including large community hospital libraries such as the Dixie Hospital of Hampton, Virginia, and the Norfolk General Hospital as well as the library of a large pharmaceutical manufacturing concern (A.H. Robins Co., Richmond), the libraries of the three Veterans Administration hospitals, the library of the U.S. Naval Hospital, and many more. Most librarians in the various contributing institutions take great pains to inform the central Union List office in Charlottesville of any changes in their holdings in order that the inventory and master file may be kept current. By using this tool the physician or other health worker is, therefore, able to discover which of the several biomedical libraries in the State has a particular journal or issue of a journal. Gone are the days when interlibrary lending was a game of chance. In days gone past, a user was forced to address his request to any library that he thought might have the issue in question. With the *Virginia Union List of Biomedical Serials*, the user will achieve his goal quickly and efficiently.

It is hoped that this effort will speed the delivery of the biomedical journal literature and, thereby, improve access to the vast store of biomedical resources for health professionals of Virginia.

WILHELM MOLL, J.D.

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# Presidential Address

CARL E. STARK, M.D.  
Wytheville, Virginia

IT IS WITH GREAT HUMILITY that I appear before this august body to report to you the activities of The Medical Society of Virginia since the last meeting of its House of Delegates, and also to present to you certain programs which, as your President, I feel deem your most thoughtful and deep consideration.

As President of the Society during this past year, I have traveled approximately 60,000 miles, I have visited many countries and states, I have been able to exchange ideas with many medical societies and to learn a great deal of their operations and their opinions on many medical problems. Let me say that these problems are exactly the same as ours and from what I can gather the majority of opinions are the same as ours. Problems can be solved in many different ways and the neighboring societies have provided me with good solutions to these problems. The distinguished Presidents here today certainly indicate their cooperation.

I will touch briefly on a few programs which have been established and which have had the approval of your Council. In dealing with nurses, the Council on Higher Education from the State of Virginia called a meeting of The Medical Society of Virginia, the Virginia Nursing Association, the Board of Medicine which used to be the Board of Medical Examiners, and the Board of Nursing. After deliberation of representatives of all these groups a Liaison Board was established between the Board of Medicine and the Board of Nursing to set guidelines for the new Nurse Practitioner Program. The Medical Society of Virginia Council has already approved the establishment

of two Nurse Practitioner Programs, one at MCV and one at the University of Virginia. Your President, and your Council have certainly felt the need to work more closely with the Nursing Association and with the nurses themselves. I have been most pleased with their reception and cooperation and am looking forward to a better alliance between the two professions. A joint practice committee on nursing and medicine will be recommended to this House of Delegates by a unanimous vote of the Committee on Nursing and by the Council of The Medical Society of Virginia. This joint committee will indeed assist us with our relationship with the nurses of Virginia. Such a committee has been recommended by the American Medical Association and the American Nursing Association. I sincerely hope that this House will see fit to approve such a committee as it is long needed in our relationship with nursing.

I would like, at this time, to interject a few other small items into my address. One is that we continue to oppose the drug substitution bill. I have received correspondence from the author of this bill during the 1973 General Assembly and it appears that this bill will be re-entered into the House of our State Legislature. In addition, I would also like to see introduced into our Legislative program the abolition of the requirement of smallpox vaccination for school children. I realize that, at the present time, the physician may state this is contraindicated for the child's health but this could easily become a medical-legal problem if any adverse condition would arise from such a position. The Virginia Pediatric Society has maintained this position and I do hope that the Medical Society will give the Pediatric Society of Virginia its full support. I, therefore, recommend that this be included in our legislative package for 1974.

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Presented at the Annual Meeting of The Medical Society of Virginia, Norfolk, October 18-21, 1973.

It gives me a great deal of pleasure to inform you of the organization and chartering of a student component society at the Medical College of Virginia. It is very heartening to see the changed student of today and it was indeed a pleasure for your Council to grant this charter this year. I hope that we will continue in our efforts to cooperate with the students of all three of our Medical Schools, as the future of medicine lies within their hands.

This year, as President, has been an extremely busy one and it has necessitated new methods for the operation of the Society so as to adequately represent its members. This has been hampered by the antiquity of our constitution and by-laws. In many instances it has been difficult to maintain the requirements of our by-laws, particularly because of the inefficiencies and inadequacies of many of the sections as they now exist.

I, therefore, recommend to the House of Delegates that they approve the recommendations presented for immediate changes of the by-laws and that this House will fund and approve the revision of our by-laws so that they will be more workable and usable to this Society.

I would like to take this opportunity to recommend to you some changes for the organization of our Society. These organizational changes have been considered by Council and they in turn will make their recommendations. First, the Medical Society deals with some 40 committees and the staff functions have become increasingly more demanding. There is also a great need for more material to be sent to our component societies and more meetings to be held jointly with the executive directors of the component societies as well as to provide them with information to better handle the affairs of the societies. It is my hope that meetings of the Presidents of the various component societies can be established on a semi-annual basis to inform them of the functions of the Council and to receive some input from them as to functions of the State Society. It also behooves the staff to provide more frequent news letters to each member of the Society. I believe that the lack of communica-

tion is frequently the seed of discontent. A well informed member of the Society can well be a satisfied member of the Society. I also believe that the staff will have to take more action in preparing the material in regard to legislature and the various bills that will come before legislature. In the off year legislature of 1973 there were approximately 140 bills dealing with medicine. To adequately cover these bills and to analyze them, to present the material to the legislative committee and finally to the physicians themselves will require a great deal of staff work and committee work. Members of the House of Delegates, you all know the importance of the Medical Society involvement in State Legislature. Each year we have observed more and more infringement upon the right of physicians. It is unfortunate that we are forced to attack these infringements rather than to set forth positive goals for the provision of good medical care in the Commonwealth of Virginia. During the time of legislature, it is necessary to have a full time staff member at the Capital to represent The Medical Society of Virginia. We have been fortunate in having Mr. Will Osburn act in this capacity. He has during the past year gained a great deal of knowledge as to this position and has become acquainted with many of our Legislators. In this respect, I respectfully request that each of you inform your legislator that Mr. Osburn is available to answer questions as to the Medical Society's position on various medical bills. As you can see, the requirements of the staff have become increasingly greater and therefore some re-organization will be required. Our Executive Secretary, Mr. Bob Howard, has prepared an organizational chart outlining the duties of the various staff members required to carry on the functions that I have outlined. This detailed chart will be presented at reference committee. The organizational change will require additional cost and it appears that it will be necessary to raise our dues from 60 to 85 dollars a year. Gentlemen, it appears that if you desire the services of the Medical Society and desire that the work be carried out as outlined, then it becomes necessary to pay for it. I, therefore, re-



quest that you pass such an increase in dues with the knowledge that under the excellent organizational staff headed by Mr. Howard you will be provided the best service for the least dollar. I personally feel the Society will in no way meet the demands of its members unless such a step is taken.

A new horizon of medicine is now approaching and I would like to take a little of my time to discuss emergency medical services for our Commonwealth. During the past four years I have served on the Advisory Committee to the Governor on emergency medical service. This has brought to mind the need for emergency care throughout the State. So frequently emergency care is considered as regular medical care. I believe the improvement of emergency medical care will certainly lead the public to believe that they will have better medical care in general. Your Society has created an emergency medical service committee which will work in conjunction with state committees in the organization of an overall comprehensive emergency medical service for the Commonwealth of Virginia. This I think is a positive step in showing the concern and action by the physicians of the State of Virginia.

Your Council and your President have indeed been concerned with the topic of continued education. There has been a great deal of indecision as to how continued education shall be carried out in the State of Virginia. There has also been a great deal of speculation and debate regarding the possibility of requiring continued education as a requirement for relicensure; in other states it is a requirement for membership in the various medical societies. I wish I could recommend some course to take in this regard. I do favor continued education and I believe that every good physician must continue to update his medical knowledge but I am reluctant to make this a requirement and I am still in favor of voluntary education on the part of our members. Our committee on education has set up a program to assist in providing a coordination of continued education in our State and I am sure further study will bring about a method which

will make available to physicians a variety of courses.

The final topic which I would like to discuss with you is PSRO. The House of Delegates, at its last meeting, approved the establishment of a PSRO committee to draw up a plan and by-laws which would be presented to this House this year. I am happy to report that under Dr. Robert Keeley such a committee did meet and did form a plan which will be presented to this House. This plan has been distributed to the various component medical societies and has been printed in the Virginia Medical Monthly. It now rests upon the House of Delegates to either adopt or reject this plan. I would like to say, in the onset, that I oppose the bill providing for PSRO and I hope that this may be declared unconstitutional or it may be repealed. But as it now stands it is the law and we are under this law. The law provides that if we do not take on this task ourselves then the implementation of the law will be done by other designated groups rather than physicians.

I would like to share with you, at this time, some of my experiences with the Federal Government. The first stage in setting up PSRO in the United States is the designation of the geographic areas to be involved. Now each section of the country is under a region of HEW. Our particular region extends to Pennsylvania and we are region three. The director of region three of HEW is Dr. Gardner and it will be through him or through his recommendations that the geographic area for Virginia will be decided. The plan which has been presented to you for your adoption involves a State-wide PSRO with various sub-divisions. It is the intent of HEW, and not the law but the so called guidelines of HEW, that there will be no State-wide PSRO with physician populations of 2500. Where this magic number came from I do not know, and I have been unable to find out any reason for such a number. It would appear to me that the tactic of HEW is to keep the PSRO units small and divided thereby better to control. If we, as physicians, are to make our rights known it is necessary that we remain united. In this respect



I know that one area of the State has considered forming a separate PSRO but after conference with this particular area and its representatives, I feel sure that they will want to co-operate and unite with the entire State.

In that the plan presented by the committee on PSRO here in Virginia is oriented about a State-wide plan, I have, therefore, endeavored to meet with the director of HEW region three to explain our plan and the necessity for remaining as a State-wide organization. These meetings have been somewhat frustrating and it appears that HEW has already decided as to the course they will take. During the meeting with Dr. Gardner I was amazed to learn of his philosophy in regard to PSRO and in the long run his opinion in regard to health care in the United States. It is obvious that he is considering that PSRO is not primarily for the quality of medical care and to assist the physician in providing good medical care to his patient, but it is a means whereby the Federal Government can have a complete check on all of its Medicaid and Medicare Programs more especially in the financial area. He also, perhaps inadvertently, made it known that he was concerned with representation on PSRO Boards and it was his concern that consumers be represented in a greater majority and that dentists, dental surgeons, insurance agents, hospital personnel and many other non-physician individuals be a part of a PSRO Board with vote. This in no way appears to be the concept of the bill as passed by Congress and I can readily see that with this bill and with future guidelines HEW and men like Dr. Gardner will endeavor to change the control of PSRO.

A state-wide PSRO as required by the Bill would not make it obligatory to have other members on the governing board who are not physicians. I, therefore do recommend to this House of Delegates that if we pass a PSRO plan, a plan such as has been presented by the Committee headed by Dr. Keeley, then we

should require that this plan and only this plan be acceptable to The Medical Society of Virginia.

I realize that this gives very little leeway for negotiations, but I also feel that a firm stand must be taken by The Medical Society of Virginia and its physicians on this most important problem of geographic distribution. If it becomes necessary to make changes in this plan, then I feel that an issue as important as this one should be brought back to the House of Delegates for their consideration and, if necessary, a special meeting of the House of Delegates be called for this purpose. If we lose the first battle with HEW it will be a course of dominance by them from now on.

I would like to reiterate my stand in saying we must be firm with bureaucracy and HEW in order that we may continue to have a freedom to practice medicine as free men.

In closing, I would like to thank my partners who have allowed me this time to spend on behalf of The Medical Society of Virginia and above all my wife who has threatened to make an appointment just to see me, but she has been understanding and I have appreciated that understanding.

Membership in The Medical Society of Virginia is now at 4,454. We have approximately 75 per cent of the active practicing physicians in the State, and I hope that with your efforts and the efforts of many of our other members we can raise this to 90 per cent. During this time of PSRO and other Federal activities there is a great need for all physicians to unite in a common goal.

Again I thank each one of you for your help especially my committees, members of Council and the officers of this Society. It has been a fruitful year, an interesting and somewhat frustrating year but one whereby the ground work has been laid, and I hope that the incoming President can continue to build on it.

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# Recent Advances in the Management of Head Injury Patients

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**Measurement of intracranial pressure as soon as head injuries reach the emergency room makes early diagnosis and effective treatment possible. Long term monitoring of the intracranial pressure by this technique is a valuable guide to treatment, is safe and is reliable.**

**V**ICTIMS OF SEVERE HEAD INJURIES who survive to reach the hospital often go on to succumb from complications of these injuries. Mortality usually results from delay in definitive diagnosis, or the lack of an effective means to treat post-injury brain edema. Last year in the State of Virginia alone there were nearly 700 deaths from head injury.

Recently several new approaches to the diagnosis and treatment of head injury patients have been developed by the neurosurgical service at the Medical College of Virginia. The key factor in the development of these new approaches has been the perfection of a practical means to monitor intracranial pressure (ICP).<sup>7</sup> ICP measurements in the emergency

room make possible definitive diagnosis in head injury patients within 10-15 minutes of admission. Long term ICP monitoring after admission provides a warning of developing mass lesions long before clinical signs appear.<sup>3,4,6</sup> Finally, ICP monitoring provides an objective guideline for the use of steroids, hyperventilation, osmotic agents, and hypothermia in the treatment of post-injury brain edema.<sup>1,2,3,5</sup> The use of these new approaches shows considerable promise for reducing the high mortality rate from head injury.

## Methods and Materials

### 1. Early ICP Measurement

Patients arriving at the emergency room with signs of severe head injury have a ventricular tap performed through a coronal twist drill hole. The procedure is done through a ½ cm scalp incision under local anesthesia. The ICP is then measured with a water manometer. Five cc's of air is also instilled for a brow up ventriculogram. The entire procedure including the taking of x-rays takes 10-15 minutes. A working diagnosis is made based on the findings of this procedure, and a decision is made about the further management of the patient according to the following guidelines: (1) patients with an elevated ICP and a shift of the ventricular system are taken to the operating room for exploratory burr holes; (2) patients with a normal ICP and midline ventricles are admitted to the intensive care unit (ICU) for observation and chronic ICP monitoring; (3) patients with a normal ICP and a shift of the ventricular system, or an elevated

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Presented at the January 1973 meeting of the Neurological Society of the Virginias, Hot Springs.

ICP with midline ventricles have an angiogram for further definition of their cerebral pathology. A summary of these guidelines is shown in Table 1.

situ against a water manometer. Each bed in our seven bed ICU contains its own oscilloscope for display of the ICP trace as well as a central recording station to write out a per-

TABLE I  
 PROTOCOL FOR EARLY ICP MEASUREMENT

	ELEVATED ICP*	NORMAL ICP
VENTRICULAR SHIFT	IMMEDIATE EXPLORATORY BURR HOLES	ANGIOGRAPHY FOR FURTHER DELINEATION OF PATHOLOGY
MIDLINE VENTRICLES	ANGIOGRAPHY FOR FURTHER DELINEATION OF PATHOLOGY	OBSERVATION IN ICU WITH CONTINUOUS ICP MONITORING

\*NORMAL PRESSURE = LESS THAN 11 mm Hg

## 2. Long Term ICP Monitoring

ICP is monitored on a chronic basis by means of a subarachnoid wick contained in a special hollow screw anchored in the skull.<sup>7</sup> The screw containing the wick is inserted into the subarachnoid space at the level of the coronal suture by drilling a 1/4 inch hole in the skull with a twist drill through a 1 cm scalp incision under local anesthesia. The procedure takes 10-15 minutes and can be easily performed on the ward or in the emergency room. The wick is connected to a pressure transducer via a saline filled tube. The system is calibrated in

manent record of the ICP on chart paper. The special hollow screw and the method of fashioning the wick from a wisp of glass wool are depicted in Figure 1. An x-ray showing the

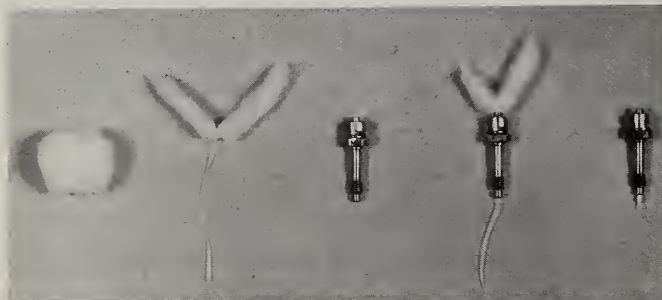


Fig. 1. Fashioning the subarachnoid wick for ICP monitoring. From left to right: (1) a ball of glass wool; (2) a wisp of glass wool with a suture around the middle; (3) the special hollow screw to hold the wick; (4) pulling the wick through the screw; (5) wick monitor ready for insertion after trimming away excess glass wool.

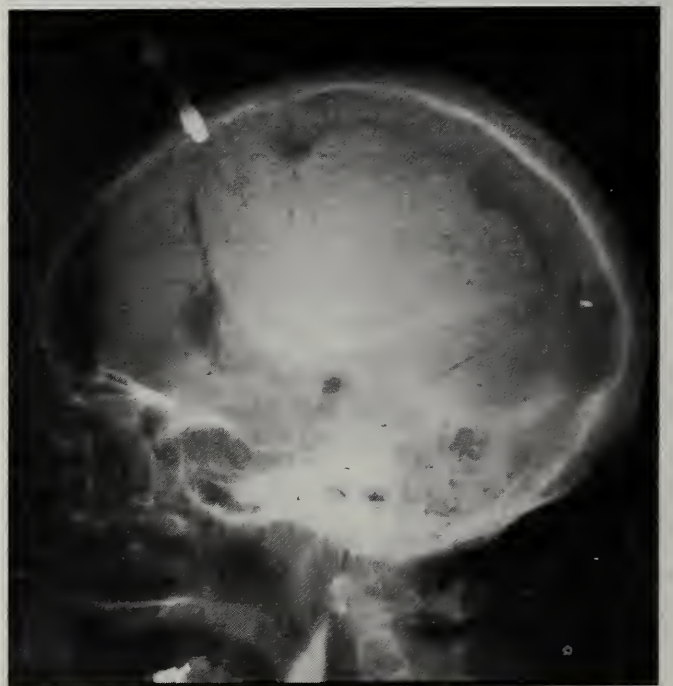


Fig. 2. X-ray of a post-operative craniotomy patient showing a subarachnoid wick monitor in place.

wick in place in a post-operative craniotomy patient is shown in Figure 2. The bedside



display system is shown in Figure 3, and the central recording station is shown in Figure 4.

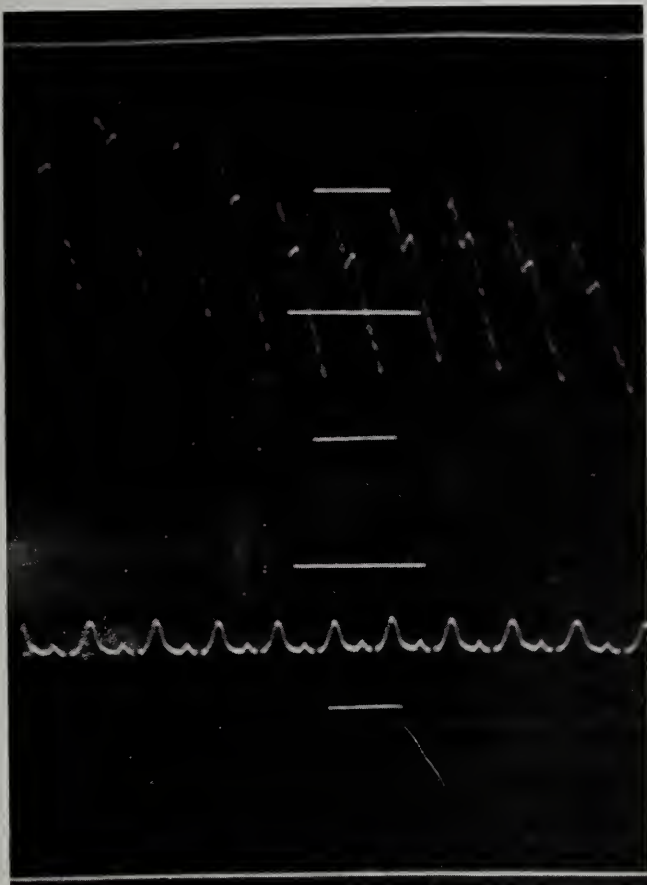


Fig. 3. Close up of one of the seven bedside ICP monitors showing the ICP on the upper trace and the EKG on the lower trace. The same oscilloscope also displays the blood pressure, central venous pressure and expired CO<sub>2</sub> percentage from each patient if desired.

### 3. *Therapy of Post-Injury Brain Edema*

The diagnosis of brain edema is made in patients who demonstrate elevated ICP after hematomas and hydrocephalus have been ruled out by appropriate contrast studies. Patients are considered to have severe edema if they have progressive neurologic signs and a mean ICP above 25 mm Hg. Patients in this category are treated with a regimen of decadron and hyperventilation.<sup>2</sup> If ICP fails to fall below 25 mm Hg on this regimen the patients are begun on a chronic regimen of mannitol.<sup>1</sup> In certain very severe cases hypothermia is also employed.<sup>5</sup> The aim of therapy is to prevent further brain injury from elevated ICP.

### Results

The results of early ICP measurement in 20 patients is shown in Table 2. The working diagnosis of focal mass lesion was made four times. These patients were taken immediately to the operating room where a large hematoma was found in each case. The working diagnosis of brain stem contusion was made in five patients. These patients were admitted to the ICU for long term ICP monitoring. None of these patients ever developed signs of a mass

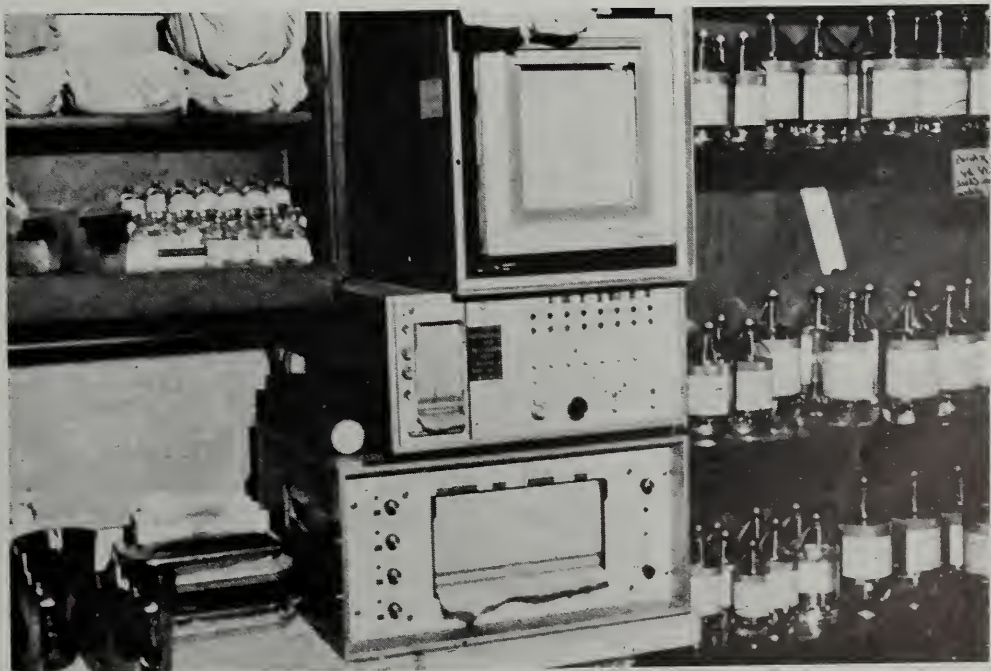


Fig. 4. Close up of the central monitoring station. The upper unit is a trend recorder which writes out the ICP from each patient. A detailed 4 channel recorder from any patient can be written out on the bottom unit by pushing a button on the control panel.

lesion. A working diagnosis of brain edema was made in 11 cases. None of these patients was found to have a hematoma during the course of hospitalization. Six of these patients went on to develop severe brain edema. This complication occurred in a high percentage of

preceded any clinical signs by 4-24 hours. There were no complications in any of these patients related to the ICP monitor. An excerpt from the ICP record of a patient with brain edema taken during an episode of Cheyne-Stokes respiration is shown in Figure

TABLE 2  
RESULTS OF EARLY ICP MEASUREMENT

CASE NO	ICP (MM Hg)	VENTRICULAR SHIFT	INITIAL WORKING DIAGNOSIS	FINAL DIAGNOSIS
1	20	+	FOCAL MASS LESION	ACUTE SUBDURAL HEMATOMA
2	9	—	BRAIN STEM CONTUSION	BRAIN STEM CONTUSION
3	10	—	BRAIN STEM CONTUSION	BRAIN STEM CONTUSION
4	50	+	FOCAL MASS LESION	ACUTE SUBDURAL HEMATOMA
5	8	—	BRAIN STEM CONTUSION	BRAIN STEM CONTUSION
6	20	—	BRAIN EDEMA	SEVERE BRAIN EDEMA
7	12	—	BRAIN EDEMA	MILD BRAIN EDEMA
8	37	—	BRAIN EDEMA	SEVERE BRAIN EDEMA
9	15	—	BRAIN EDEMA	MODERATE BRAIN EDEMA
10	18	—	BRAIN EDEMA	MODERATE BRAIN EDEMA
11	45	+	FOCAL MASS LESION	EPIDURAL HEMATOMA
12	22	+	FOCAL MASS LESION	ACUTE SUBDURAL HEMATOMA
13	50	—	BRAIN EDEMA	SEVERE BRAIN EDEMA
14	30	—	BRAIN EDEMA	SEVERE BRAIN EDEMA
15	18	—	BRAIN EDEMA	SEVERE BRAIN EDEMA
16	8	—	BRAIN STEM CONTUSION	BRAIN STEM CONTUSION
17	22	—	BRAIN EDEMA	MILD BRAIN EDEMA
18	15	—	BRAIN EDEMA	BRAIN STEM CONTUSION
19	8	—	BRAIN STEM CONTUSION	BRAIN STEM CONTUSION
20	50	—	BRAIN EDEMA	SEVERE BRAIN EDEMA

patients when the initial ICP was greater than 20 mm Hg.

Long term ICP monitoring with the sub-arachnoid wick system has been carried out in 20 patients for periods of one day to three weeks. The average time of monitoring has been five days. Patients who did not have complications of neurosurgical importance during their hospitalization had a mean ICP below the 20-25 mm Hg range. Patients who developed complications had a rise in mean ICP above this range. The rise in ICP usually

5 to illustrate the type of ICP record obtained with the wick system.

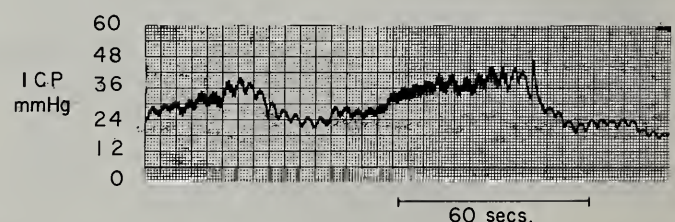


Fig. 5. Excerpt from the ICP record of a patient with brain edema during a period of Cheyne-Stokes respiration demonstrating the marked effect of the respiratory pattern on the ICP.



Therapy of post-injury brain edema guided by the ICP response has been carried out in a total of 18 patients with severe brain edema on our service. All patients in this category were deeply comatose, had decerebrate posturing, had one or both pupils dilated and fixed, and had a mean ICP above 25 mm Hg before therapy. Reduction of ICP below the 25 mm Hg level on a long term basis was achieved in all patients when the full regimen with chronic mannitol was employed. Therapy was carried out for 1-13 days in these patients averaging eight days. Nine patients ultimately recovered from their brain injuries in this group. In the remaining nine the regimen had to be discontinued for systemic reasons, and ICP could not be controlled with conventional means. The following case report is illustrative.

### Case Report

L. B. (#5 35 91 17) is a 28 year old woman who arrived at the emergency room of the Medical College of Virginia on 11/4/71. Forty-five minutes prior to admission she had fallen from a horse striking her head against a brick retaining wall. On admission she had bilaterally fixed and dilated pupils and bilateral decorticate posturing. Within 10 minutes of arrival her pupils had become reactive and her movements had become semi-purposeful. An ICP measurement was performed through a right coronal twist drill hole and 5 cc of air was instilled. The ICP was 20 mm Hg and an x-ray showed a 2 cm right to left shift of the ventricular system. The patient was taken immediately to the operating room where a 100 cc subdural hematoma was evacuated from the right fronto-temporal area, and 4 cm of badly contused right temporal lobe was excised. An ICP monitor was inserted. Post-operatively, the patient began to wake up, but her ICP rose to 27 mm Hg. An angiogram revealed no evidence of recurrent clot or focal mass lesion. Four hours after the ICP rise the patient's left pupil became dilated and fixed and she showed right sided decerebrate posturing. The patient was begun on a regimen of steroids, hyperventilation, and chronic man-

nitol at a rate of .3 gm/kg/hour. When her ICP dropped below 25 mm Hg her left pupil became reactive again and her decerebrate posturing disappeared. The patient was continued on the above regimen for nine days until her ICP returned to normal. The patient ultimately made a full recovery, and was able to return to work at her former employment.

### Summary and Conclusions

Early ICP measurement can lead to accurate diagnosis of head injury patients within 10-15 minutes of admission. Hematomas can be discovered and evacuated before they produce clinical signs. Early treatment of these hematomas limits brain injury in these patients resulting in fewer patients with severe brain edema. Long term monitoring of ICP permits recognition of complications of neurosurgical significance before they produce clinical signs. The subarachnoid wick system has proven to be a safe, reliable, and practical means to monitor ICP. Therapeutic regimens for severe brain edema guided by the ICP response have resulted in nine survivors out of 18 in a condition almost always fatal with conventional forms of therapy. We feel that the overall morbidity and mortality in head injury patients can be lowered through the use of modern monitoring methods.

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### LET'S REMINISCE!

*A Female Medical College at Richmond, Va.!*

Our city readers will be not a little surprised at the following announcement, which we copy from the Montreal Medical Chronicle:

"The corner stone of a Female Medical College to cost \$125,000, has been laid at Richmond, Va."

Now we respectfully inform our Canadian confrere, that here in the "States" we have a line corresponding nearly with the Potomac, called Mason's & Dixon's line, and that a great variety of tom-fooleries, such as mesmerism, spirit rappings, Canadian annexation schemes, women's rights conventions, female medical colleges, &c. prevail extensively north of this line, diminishing in intensity as they approach it; but that the warm genial climate and slavery of the states south of this line appear to be almost as unfavorable to them as the soil of the Emerald Isle is to physical reptiles.

We presume the announcement in question refers to the Baptist Female Seminary of this city, one of the most elegant buildings for the purpose in this country. Probably the institution was termed in our papers a female college, from a little affectation not unusual in these days of women's rights.

(The Stethoscope, Vol. V, No. I, January 1855)



# G.C. Culture Evaluation in a Community Health Center

## A Study of 870 Cases

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**The diagnosis of gonorrhea in the female by use of culture leaves much to be desired. More precise and rapid diagnostic methods are needed.**

**V**ENEREAL DISEASE, and especially gonorrhea, has been very much in the professional and lay publications in recent years. This may be due to an actual increase in the incidence, better possibilities of diagnosis or conditions leading to free discussion of the subject.

Recent publications have claimed results comparable to the standard pour plate technique with Thayer-Martin selective culture medium by use of simplified methods, the most commonly mentioned being "Transgrow", developed by Martin and Lester at the National Communicable Disease Center.

The purpose of this paper is to report our experience with this method as originally recommended, with the modifications we had to introduce in the handling of the cultures, and in comparison with a recent modification ("Clinicult").

Shortly after "Transgrow" became commercially available, one of us (RD) had tried it in 50 or 60 consecutive cases in the clinic population of the Out-Patient Department of Riverside Hospital. It compared very poorly with the published results, as well as with those being then obtained at the Newport News Health Department, in a comparable clinic population, but including the V.D. Clinic

(Positives averaging 8.7% in 1971). Its use was abandoned at that time by the Out-Patient Department at Riverside Hospital, and standard techniques were resumed.

In January 1972, with the installation of the Newport News Health Center,\* we had the opportunity to review this problem, now with a clinic population including our original one and that of the Newport News Health Department Clinics.

The patients included were all of the Pre-Natal, Gynecology and Family Planning Clinics. All new patients, and all patients due for their yearly "Pap" test, were cultured, as well as any patients with a recent history of exposure to or treatment of gonorrhea, a presumptive diagnosis of acute P.I.D., acute cervicitis, unexplained heavy discharge, etc. Specimens were designated as "routine" or "indicated". The cultures were obtained from the cervical canal, with a sterile cotton swab, and immediately spread by rotation, in a Z track pattern, on the surface of the culture medium. In the comparative study, separate swabs were used for each method. The culture tubes were kept refrigerated, but were replaced in a cardboard box after inoculation, until they were taken to the laboratory, at the end of each clinic period. Care was taken at the time of inoculation to maintain the bottles vertical while unstoppered, and to close them tightly immediately afterwards. The "Clinicult" tubes were inoculated and treated as recommended by the manufacturer, the CO<sub>2</sub> releasing tablet inserted and placed in the special incubator within a few minutes of collection. Due to logistics problems, they were

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\*E. G. KING, M.D.: *Director.*

transferred to a standard incubator in the laboratory daily.

When received in the laboratory, the "Transgrow" bottles were placed in an incubator at 37°C. for 48 hours. Initially, duplicate cultures were taken for further diagnostic procedures on positive cases (fermentation tests), but this was discontinued in February 1972, both due to practical difficulties encountered and to the latest recommendations of the CDC, regarding vaginal and cervical cultures for G.C. Cultures were then examined macroscopically, before and after treatment with a 1% solution of N, N-Dimethyl-p-phenylene diamine monohydrochloride ("Oxidase test"). Any colonies turning purple-to-black on this test were considered positive if the Gram-stain showed Gram-negative diplococci.

From March 1, these procedures were modified, the following changes being made:

The temperature in the incubators was lowered from 37° to 35°C.

The bottle tops were loosened, and the "Transgrow" bottles placed in a CO<sub>2</sub> rich atmosphere, first, by the use of "candle-jars" in the standard incubators, later, by the use of a special incubator permitting the addition of measured amounts of bottled CO<sub>2</sub>.

The cultures were examined at 24 hours, those showing growth being processed as above, the others being re-examined at 48 hours.

The immediate and marked change in the percentage of positive cultures can be seen in Tables I and II.

TABLE I

January-February 1972	
Total patients	240
Positives	2
Positives %	.84%

No additional CO<sub>2</sub> enriched atmosphere was used with the "Clinicult" method, identification procedures being otherwise identical, the oxidase test being the one pertaining to the system (tetramethyl-p-phenylenediamine dihydrochloride).

The very poor results in the initial 240 cases, in which the "Transgrow" bottles were simply incubated, following the published recommendations for its use, forced us to re-evaluate our procedures.

One of us (JPD), consulted with and visited

TABLE II

March through June 1972	
Total patients	630
Positives	46
Positives %	7.3%

several private and state laboratories, and use of CO<sub>2</sub> rich atmosphere was started, with an immediate increase in the percentage of positivity, first by use of "candle-jars" and later by the use of a special incubator in which a CO<sub>2</sub> rich atmosphere can be maintained, for greater precision of technique and convenience. During this second part of the study, a parallel evaluation of a culture Kit system ("Clinicult") was done in 103 cases. There were no discrepancies between these two methods (Table III).

TABLE III

"Transgrow"/"Clinicult" comparison series	
Total patients	103
Positives	8
Positives %	7.8%

Comparison of the "routine" and "clinically indicated" culture specimens showed a slightly higher yield of positives when clinical suspicion was present, but the difference was not impressive and the numbers small. The greater total number of cases found were in the larger "routine" group. (Table IV)

TABLE IV

"Indicated" vs. "Routine" cultures	
"Indicated" total	99
"Indicated" positives	9 — 9.1%
"Routine" total	771
"Routine" positives	39 — 5.1%

## Conclusions

1. "Transgrow" was evaluated as originally



recommended (simple incubation) and found grossly inadequate.

2. Addition of a CO<sub>2</sub> rich atmosphere *shortly after inoculation* to the handling of the "Transgrow" cultures resulted in a significant improvement in positivity, although our overall results are low when compared to many published series.
3. A small series (103 cases) comparing the "Clinicult" system with "Transgrow" plus CO<sub>2</sub> gave an exact correlation without any discrepancies.
4. "Clinical impression", even with a high degree of suspicion, is inadequate in the diagnosis of the N. Gonorrhea carrier.

## Discussion

The results above suggest that in Clinical practice, removed from the experimental laboratories and their Satellite Clinics, "Transgrow", as initially recommended, fails, probably due to loss of CO<sub>2</sub> from the bottles before use.

Although this can be solved by the more elaborate laboratory techniques or by the use of the more costly "Clinicult" system, more precise and rapid diagnostic methods for N. Gonorrhea are needed, if V.D. is to be controlled.

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## Nose-altering

Doctors call it "corrective rhinoplasty." The rest of us call it a "nose job." By whatever name, the surgical procedure that alters the size and shape of the nose is now an almost routine and commonplace operation.

In the June issue of *Archives of Otolaryngology*, a publication of the American Medical Association, an Austrian doctor reports on more than 5,000 rhinoplasties performed over a period of almost 20 years.

Hans G. Bruck, M.D., of Vienna, divides rhinoplasty operations into three categories: (1) Improvement of the nose only; (2) Radical change of the size and shape of the nose, altering the whole face; (3) Profileplasties, in which a receding chin is built up at the same time the nose is altered.

In the first procedure, the general shape and appearance of the face remains the same, and no psychologic disturbances result. In the change of the whole facial appearance, sometimes radical psychological disturbances occur. The patient looks in a mirror and sees a complete stranger. The shock is sometimes difficult to bear. Careful advance counseling is an absolute must for these patients. In profileplasties, building up the chin as well as reshaping the nose, it sometimes is necessary to work along with a dental specialist.

Although the operation is now common and is well understood by the surgical specialists, there are times—about 4 per cent—when rhinoplasty results are not satisfactory. Then a second operation to correct the problems left from the first sometimes is in order.

# **Cancer Trends . . . .**

Edited by—

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## **Cancer Screening**

Most physicians agree that effective screening programs would significantly reduce the mortality from cancer. Refinements in surgical techniques and radiotherapy regimens may slightly improve the salvage ratio, but effective screening methods which make it possible for the surgeon or radiotherapist to treat smaller, more localized lesions seem more likely to save lives. For a screening test to be effective, it must be shown to reduce the mortality from a disease without being too expensive for the public to bear. Some of the obstacles that a test must overcome before it can be recommended as a routine procedure are outlined below.

### **Evaluation of Screening Methods**

*It must screen for common diseases.* The VMA determination is a useful procedure when looking for pheochromocytomas, but the disease is so rare that its routine use is not justified. If we had an equally reliable test for early lung cancer, we probably would use it on all male smokers over the age of 40.

*The test must be sensitive.* A test with a high percentage of false negatives may be worse

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Sponsored by the Professional Education Committee, Virginia Division American Cancer Society

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B. W. RUFFNER, M.D.

than no test at all. Patients might be incorrectly reassured and ignore later signs of growing tumor. Examination of the abdomen will occasionally reveal a carcinoma of the colon, but it obviously is not an adequate screening test.

*The test must be specific.* False positives lead to further expensive procedures which increase the cost of the screening program. The carcino embryonic antigen (CEA) is present in a high proportion of patients with carcinoma of the alimentary tract but it is also present in many patients with cirrhosis, pancreatitis, and ulcerative colitis. The CEA is also present in more than 20% of healthy patients. Subjecting all patients with a positive CEA to upper GI series and barium enemas would result in a very expensive screening program.

*The test must improve the cure rate.* Prolongation of survival is not enough. Detection after spread has occurred may prolong the median survival of the screened group but it doesn't improve the cure rate. The Philadelphia Pulmonary Neoplasm Research Project gave 6,000 middle aged smokers routine chest films every six months. They picked up scores of asymptomatic lung lesions, but their cure rate was no better than was seen in groups not screened.<sup>(1)</sup> An effective treatment must be available.

*Cost must be reasonable.* Routine bronchoscopy on all male smokers might save some lives, but the cost would be prohibitive. The



expense of a screening program must be evaluated in terms of (1) the patient's dollars, (2) the physician's time and (3) the patient's discomfort and inconvenience.<sup>(2)</sup> In the Philadelphia Lung Cancer Study mentioned above, it has been estimated that a multi-million dollar project may have saved one man who would have otherwise died. The cost of false positives must also be considered. CEA assays are cheap, but the cost of barium studies on 20% of the screened population must be included in the cost estimate.

*High risk groups reduce the cost.* When risk factors can be properly evaluated they increase the percentage of true positive results and thus decrease the cost. In some cases, the risk factors are obvious, such as cigarette smoking for lung cancer, and strong family history for breast cancer. In other cases, the correlations are not as strong and we don't know exactly how to use our data. Examples in this category include the higher incidence of stomach cancer in patients with blood group A, the association of hypertension and diabetes with adenocarcinoma of the endometrium, and the increased incidence of lung cancer after tuberculosis. Histories of exposure to asbestos (lung, ? colon cancers), radiation (leukemia, bone tumors), analine dyes (bladder tumors), and other carcinogens may also be important.

*Where do you draw the line?* All of the factors mentioned above contribute to the effectiveness of screening. As the tests improve in sensitivity and specificity and as high risk groups are identified more accurately, the cost of saving a life by early detection will drop. At present, it is estimated that the cost of detecting an early carcinoma of the cervix is \$3,000 when women over the age of 40 are screened. The cost of detecting a breast cancer with physical examination and mammography has been variously estimated at \$2,500 to \$20,000 depending on the patient population being screened. Saving one patient from lung cancer with routine chest films probably costs several million dollars. I have been told that the cost of life-saving highway improvements averages \$400,000 per life saved.

## Currently Available Procedures

In this section I will outline the more popular and the newer techniques for the more common tumors. For each tumor I will also give the number of Virginians expected to die from it<sup>(3)</sup> and a few risk factors which may be important. In order of frequency, our biggest problems are:

*Lung* (1400 Virginians will die this year.)

There are no screening methods which have been shown to improve the cure rate. Routine chest films almost certainly do not, probably because most lung tumors have spread before they are detectable. Risk factors here include cigarette smoking (10-50 fold increase), tuberculosis (5x) and asbestos and uranium dust exposure.

The National Cancer Institute is currently investing more than three million dollars per year in efforts to evaluate sputum cytology as a screening method. Deep cough techniques are used to collect sputum, and bronchograms and bronchoscopy are used to find the early tumors. The cost of early detection using these methods is unknown.

*Colon* (750)

There are two proved methods: stool examination for occult blood and rectal exam. A single stool examination is insensitive and very non-specific, but its simplicity makes it a worthwhile procedure. Routine proctoscopy is in the "grey zone". Some physicians think it should be offered to all patients over 40 every other year. Others think it should be used only on patients with suspicious symptoms such as change in bowel habits, abdominal discomfort, *any* rectal bleeding or palpable masses.

A commercially available guaiac-impregnated slide (Hemoccult) may improve the usefulness of stool exams.<sup>(4)</sup> When patients are placed on a meat free, high roughage diet, the test becomes more sensitive and more specific. The patient prepares a smear of three successive stools and mails them to the physician. In Greigor's series careful workup of patients with 3+ or 4+ stools revealed several



silent colon tumors as well as polyps of possible significance.

The entire American population seems to be a high risk group, apparently correlated to our low-roughage diet which is also high in refined sugars. These factors appear to increase colon transit time and increase constipation. How this leads to tumors is unknown.

#### *Breast (650)*

One in every fifteen women will be afflicted with breast cancer, so screening is of obvious importance. The physician's breast examination and the patient's self examination are essential. Many physicians forget to have the patient lean forward or to lift her arms over her head in order to accentuate retraction signs. While the physician is doing the exam he should be teaching the woman to examine herself one week after each menstrual period.

Thermography is an easy, but nonspecific screening method.<sup>(5)</sup> When positive thermograms are followed by mammography many silent tumors are found, especially in older women with large breasts. In one of the best screening studies performed, Strax randomized 62,000 participants of the Health Insurance Plan of Greater New York into two carefully matched groups. The "control" group was given routine care, but the test group was offered thorough examinations and mammograms at yearly intervals. After three and a half years, there were 52 deaths from breast cancer in the controls and 31 in the group given mammograms.<sup>(6)</sup> The only criteria of successful screening is lives saved.

Perhaps the most important finding in this study was that 34% of the lesions would have been missed without mammography and 44% would have been missed without physical examinations. The two procedures are complementary.

Nulliparity and family history are important high risk factors. Premenopausal and bilateral breast cancer are frequently inherited. If a patient's mother and sister develop breast cancer before menopause, the patient has a 30% chance of developing breast cancer before menopause.

#### *Stomach and Pancreas (500 cases combined)*

The fact that there are *no* effective screening methods is largely responsible for the dismal salvage rate with these tumors.

#### *Prostate (375)*

The only effective screening method is the rectal examination. The old saying that "more patients die *with* prostate cancer than die *from* it" is misleading. This statement is true only because of the large number of men who are found to have microscopic disease at autopsy. When a man develops bone pain or urinary obstruction his median survival is just three years; he is probably going to die from prostate cancer. The only way to avoid these painful deaths is by early detection of asymptomatic nodules.

#### *Uterus (250, including both fundus and cervix)*

Papanicolaou smears are sensitive, fairly specific and inexpensive when used for cervical cancer. Although less sensitive they also will detect adenocarcinoma of the uterus in about 50% of afflicted patients. Although not proved in a straightforward randomized trial, the "Pap" smear's effect on mortality from cervical cancer seems clear.<sup>(7)</sup> In the late 1950's over 90% of the women in Louisville, Kentucky, were screened. The result was a dramatic decrease in the death rate in Louisville while the rate was rising in the remainder of the state.

There are no significant new tests on the horizon, and indeed none are needed. Multiparity, onset of sexual experience at a young age and multiple sexual partners are high risk factors for cervical cancer. Hypertension, diabetes, late menopause and a history of menstrual irregularity are associated with an increased risk of adenocarcinoma of the endometrium.

### **Summary**

It is obvious from the above discussion that few procedures have fulfilled our criteria for an accepted screening procedure. The ones we recommend have and are as important a part of the physical examination as the blood pressure and urine glucose examinations.



For women over forty years of age a yearly pelvic examination with Pap smears should be done. An effort should be made to palpate the ovaries on the long-shot possibility of finding a Stage I ovarian tumor. During the rectal examination, colon tumors should be kept in mind and a stool sample for guaiac should be obtained. Breast examination should be done in the supine position and sitting with arms at her side and overhead. Remember to instruct the patient while examining her.

Unfortunately, in men the screening examination is really a rectal examination and a smoking lecture. The prostate gland should be thoroughly examined and stool should be obtained for occult blood if possible. The smoking lecture probably will not work but it is more valuable than a routine chest film.

These procedures should be offered to all patients, not just to those who want an annual physical exam. They can be done in ten minutes at little cost. An annual physical should include the following additional procedures: (1) triple stool examination as outlined above, (2) proctoscopy every other year, (3) sputum cytology on male smokers over forty and (4) thermography with mammography for all with positive thermograms.

The above procedures are recommended to asymptomatic, "low risk" patients. High risk factors and early signs and symptoms suggesting lung, colon and breast pathology should be pursued promptly.

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## COMMENTS

Great emphasis is being placed on early detection of cancer in asymptomatic patients. Dr. Ruffner has clearly outlined the various procedures available and their current rates of success. As he points out so well, most of these should be part of the physical examination. Every doctor's office should be a cancer detection center.

THE EDITORS

## Clinical Center Study of Immune Deficiency Diseases

The cooperation of physicians is requested in the referral of patients with ataxia-telangiectasia for a study being conducted by the National Cancer Institute at the Clinical Center, National Institutes of Health in Bethesda, Md.

Ataxia-telangiectasia is characterized by cutaneous and conjunctival telangiectasia, cerebellar ataxia, and recurrent respiratory infections. At the Clinical Center a full evaluation of the immunologic, neurologic and endocrinologic status of the patients will be made.

A full and prompt report of all studies done as well as recommendations for therapy will be sent to referring physicians.

In appropriate instances, therapy will be undertaken after consultation with the referring physician.

Physicians interested in having their patients considered for admission to this study may write or telephone: Warren Strober, M.D., National Cancer Institute, Building 10, Room 4N114, Bethesda, Maryland 20014, Telephone: (301) 496-6781.

MACK I. SHANHOLTZ, M.D.  
*State Health Commissioner of Virginia*

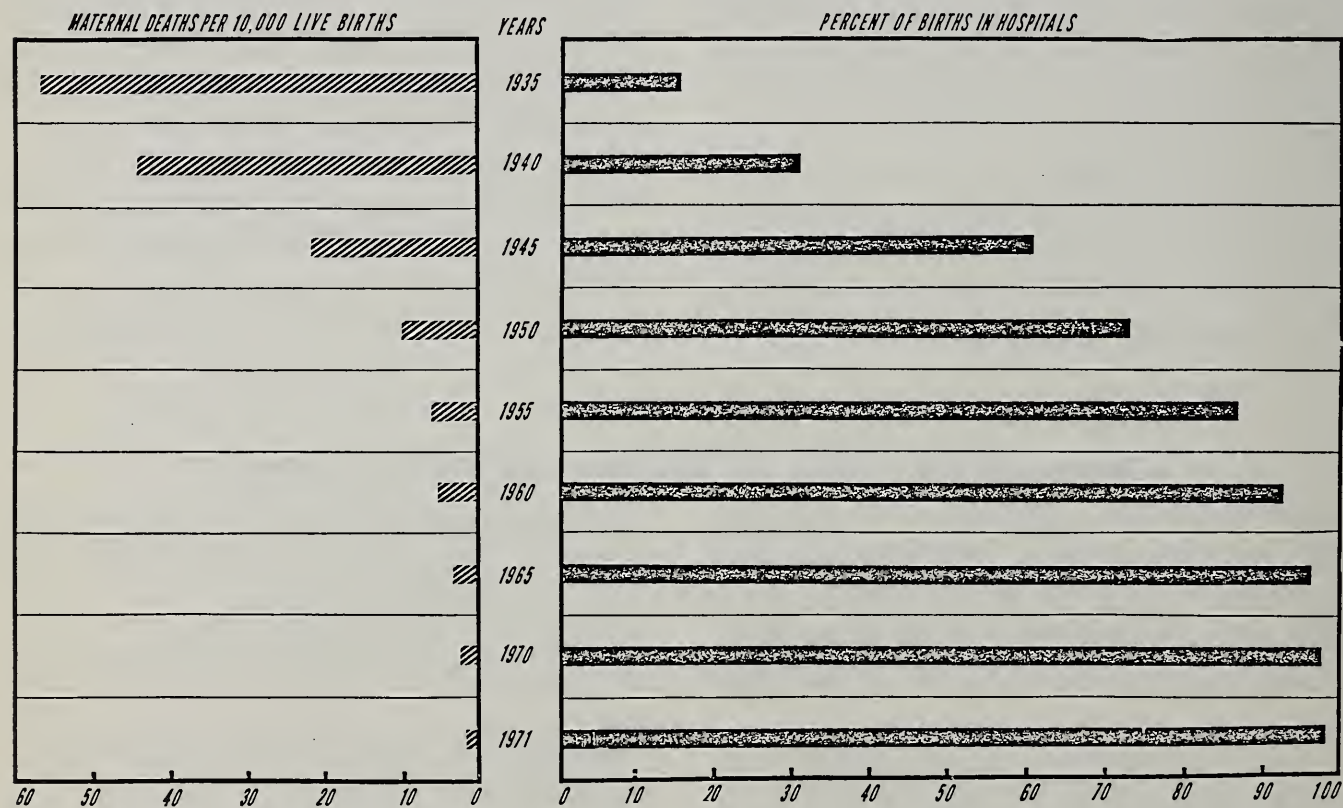
Proposed Changes in Rules and Regulations for Practice of Midwifery

In 1972, the maternal death rate for Virginia was 2.0 per 10,000 live births. This is one of the lowest maternal death rates in Virginia's history. Two years, 1968 and 1971, had somewhat lower rates. If we expect to reduce these figures, and we are sure it can be done, we must not allow any weakening of our efforts by lowering the standards of maternal care. It has been shown that the safest place for deliveries is in the hospital. The advantages and benefits to the patient physician-nurse-hospital

leading causes of maternal deaths in Virginia. It is exactly these which are less amenable to prevention and correction with home deliveries by untrained attendants. Graph 1 presents evidence of such safety.

Although patients may be looking for other ways of obtaining maternity care because of their inability to pay or because of social mores, we must not allow ourselves to be so concerned with these factors that we neglect to give adequate maternity care. Perhaps be-

Graph 1  
MATERNAL MORTALITY AND HOSPITALIZATION OF BIRTHS IN VIRGINIA SINCE 1935



care in delivery over any other type of maternity service are absolute and beyond any logical comparison. Through the years infection and hemorrhage have been among the

cause of these factors, we are beginning to see the slight rejuvenation of interest in the use of the inexperienced and untrained midwife by some elements of the public. This must be



discouraged. It can be seen from Graph 2 that midwife deliveries have declined over the years. This is a noteworthy trend if we wish to maintain the low maternal mortality rates we now enjoy.

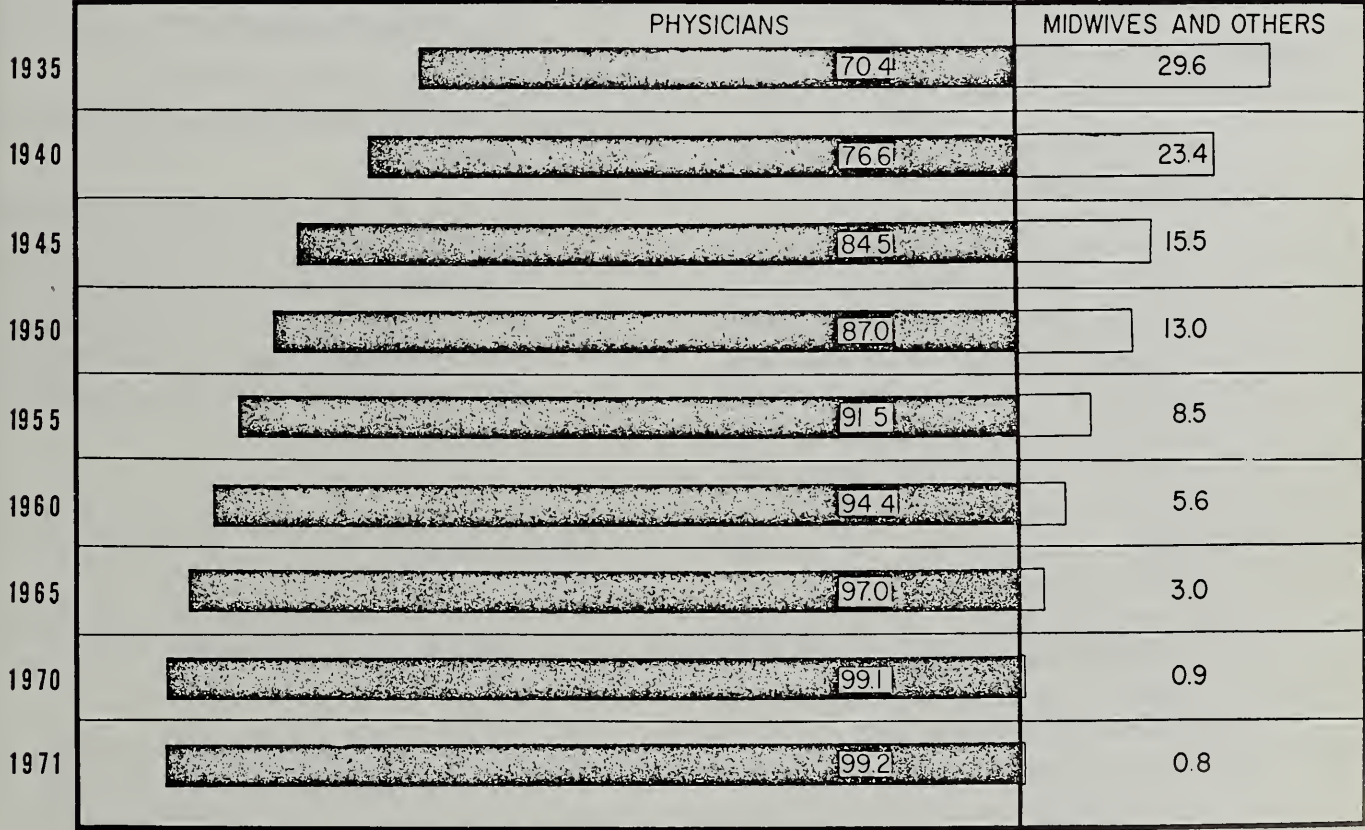
However, a new prospect in maternal care has come to the fore—the nurse midwife. A trained nurse midwife has shown us that there is an alternate way to deliver professional ma-

any patient having a midwife delivery. This is as it should be, for only a physician can make a logical, professional estimation of the course of labor and delivery for a patient. In other words, the practicing physician really has the final control over midwife activities in the State of Virginia. But this is quite a responsibility. We feel that with an adequately trained nurse midwife working in a hospital,

Graph 2

ATTENDANTS AT LIVE BIRTHS IN VIRGINIA, SINCE 1935

PERCENTAGE DISTRIBUTION OF ATTENDANT AT BIRTH



1972

99.3

0.7

ternity care at reasonable cost. The adequately trained nurse midwife may function in a maternity clinic and in the delivery room of a hospital under the supervision of a physician.

At present there is a joint responsibility of the Health Department and the medical profession in the supervision and quality control of midwife services. The local physician makes the first determination relating to the estimated competence of the prospective midwife by his "letter of recommendation". He also makes the final assessment as to the advisability of

under a physician's supervision, the delegation of responsibility would be easier. The physician could be confident that the person in whom he is putting his trust has been trained and will be aware of any prenatal or intrapartum problems and will call these to his attention in order that timely intervention by the physician can be made.

Recognizing the importance of the above facts and information, the State Health Department desired to make certain changes relating to the practice of midwifery in Vir-

ginia. These revisions had been studied by the Committee on Maternal Health of The Medical Society of Virginia and received the Committee's approval and endorsement. The amended Rules and Regulations approved by the State Board of Health are presented below.

**Rules and Regulations  
of the  
Board of Health  
Commonwealth of Virginia  
Governing the Practice of Midwifery**

(Adopted under Section 32-167.1 through  
32-167.6 of the Code of Virginia)

**I. PERMIT FOR PRACTICE OF MIDWIFERY**

A. Each applicant for a permit to practice midwifery shall:

1. Apply on a form provided by the Local Health Director.
2. ~~Present~~ Letter of ~~recommendation~~ reference from ~~a~~ each of two local practicing physicians who personally knows the candidate *to be sent directly to the Local Health Director for the area involved.*
3. ~~Pass a literary test.~~ *Be a high school graduate.*
4. Be not less than 21 and not more than 65 years of age.
5. ~~Observe and assist with five~~ ten or more hospital deliveries.
6. Pass a physical examination given by the Local Health Director or a practicing physician ~~including a chest x-ray and a blood test.~~ *This examination to include a chest x-ray, blood test, cervical or penile and rectal culture and throat culture.*
7. Conform with acceptable moral reputation and ~~observe~~ *adhere to* high standards for personal cleanliness, ~~and neatness and demeanor.~~
8. *Beginning July 1, 1974, applicants for a midwife permit must be graduates of an approved school of nurse midwifery.*

B. When all of the above conditions have

been met satisfactorily, the Local Health Director shall certify the application and forward it *together with the two letters of recommendation* to the Director of the Bureau of Maternal ~~and Child Health~~. The permit, signed by the Director of the Bureau of Maternal ~~and Child Health~~, together with a midwife pledge card shall be sent to the Local Health Director ~~for his signature and presentation to the midwife.~~ *He shall sign the permit presenting it to the midwife. She shall sign the pledge card in the Health Director's presence who will then forward it to the Director, Bureau of Maternal Health.*

C. *All permits in effect now shall be continued.*

D. *All new permits issued and all permits in effect now must be renewed every two years by the Local Health Director who must certify that the Midwife is in compliance with existing Rules and Regulations for nurse midwife practice.*

**II. REGULATIONS FOR PRACTICE OF MIDWIFERY**

A. Midwives shall observe the following regulations in the practice of midwifery:

1. ~~Have each patient examined attended by a midwife must have had prenatal care by in the Local Health Department maternity clinic or by a private physician and a blood test for syphilis performed.~~ *The examining physician shall give the patient a statement that it is believed safe for her to have a midwife delivery. A "Certificate of Examination" (provided by the Health Department) is to be completed by the physician and given to the patient at or following her 8½ month of pregnancy.*
2. *Place two drops of 1% nitrate of silver solution (provided by the Health Department) in the con-*



*conjunctiva of each eye of the baby immediately upon birth.*

3. Report each live birth to the Registrar at the Local Health Department within seven (7) days of such birth.
4. Report ~~each~~ the birth of a dead baby *immediately* to the County or City Medical Examiner ~~immediately and to the Local Health Department.~~
5. ~~Report the birth of each baby~~ Every infant weighing less than 5½ pounds *or less must be reported immediately* to the Local Health Department ~~immediately.~~
6. ~~Attend clinics and classes offered by the Local Health Department.~~

*Comply with all Local Health Department Directives relating to the practice of midwifery.*

7. ~~Keep the delivery bag clean and ready at all times.~~ *Continuously maintain all equipment and supplies in medically clean and acceptable condition.*
8. ~~Practice rules for good personal health.~~

### III. REVOCATION OF PERMIT

- A. The midwife permit may be revoked by the Director of the Bureau of Maternal ~~and Child~~ Health upon evidence that the midwife has failed to comply with any *one* of the above requirements.

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## Clinical Center Study of Patients with Ovarian Carcinoma

The cooperation of physicians is requested in the referral of patients for a controlled clinical trial of the treatment of advanced ovarian carcinoma being conducted by the National Cancer Institute's Medicine Branch at the Clinical Center, National Institutes of Health, Bethesda, Maryland.

Previously untreated patients with serous or undifferentiated ovarian carcinomas of all stages, under age 65, are needed for this study.

Upon completion of their studies, patients will be returned to the care of the referring physician who will receive a summary of findings.

Physicians interested in having their patients considered for admission to these studies may telephone: Vincent T. DeVita, Jr., M.D., or Robert C. Young, M.D., (301) 496-2031, or write Admitting Office, National Cancer Institute, Clinical Center, Room 10N-119, Bethesda, Maryland 20014.

# Mental Health . . . .

## A Meeting of the Court of Directors

JAMES B. FUNKHOUSER, M.D.

Two hundred years ago, in October, during the declining years of Louis XV of France, a young man named Phillipe Pinel was graduated in medicine at the University of Toulous. Somewhat later he was to establish a historical precedent by releasing mentally ill patients from their chains at the Salpetriere, the beginning of the "moral" treatment of the "insane".

In England, 200 years ago this month, King George III was then a young man 33 years of age. He had had recurrent symptoms of insanity for eight years. Medical historians now believe that he probably was suffering from porphyria.

In America, in Philadelphia, young Dr. Benjamin Rush, later known as "The Father of American Psychiatry", having graduated from medical school in Edinburgh, Scotland, had been in the practice of medicine for four years.

In Virginia, in October of 1773, in Williamsburg, Thomas Jefferson, a recent graduate of the College of William and Mary (in His Majesty's most loyal colony) was practicing law with George Wythe. Tom Jefferson did not like the law. He said "it is trade to question everything, to yield nothing, and to talk by the hour." He was a member of the House of Burgesses where he was said to have never made a speech.

In Williamsburg, Virginia, in October of 1773, the first public hospital in America, ex-

clusively for mental illness, admitted its first patient. The minutes are excerpted as follows:

"At a meeting of the Court of Directors appointed by Act of the Assembly instituted to make provision for the support and maintenance of idiots, lunatics and other persons of unsound mind, held at the hospital the 12th day of October, one thousand seven hundred and seventy-three, there was present The Honorable Thomas Nelson, Esq., Robert Carter, John Camm, Clerk, Peyton Randolph, Esq., Robert Carter Nicholas, Lewis Burwell, John Blair, Thomas Nelson, Jr., John Tazewell and Nathaniel Bunwell, Esq.

"The Orders of the Last Court were read and signed.

"The Court took into consideration the case of Zachariah Mallory, brought to the hospital from the County of Hanover by virtue of a warrant under the hands and seals of John Starke, Francis Smith and Thomas Garland, gentlemen justices of the said county. It appearing from the depositions of Benjamin Grubbs and William Maenaman taken and returned by the said justices that the said Zachariah Mallory is a person of insane and disordered mind, it is ordered that he be received into the hospital."

The mental hospital had been conceived by the Royal Governor Francis Fauquier some 10 years earlier but the Royal Governor of Virginia, resident in the palace in October 1773, was a Scottish nobleman, John Murrey, Earl of Dunmore, Viscount Fincastle, Baron of Blair, Moulin and Tillymont.

The aristocrats in the colonial capital in those days on formal occasions wore powdered

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Excerpt from remarks made at 200th Anniversary celebration at Eastern State Hospital.

FUNKHOUSER, JAMES B., M.D., *Deputy Commissioner, Department of Mental Health and Mental Retardation.*

Approved for publication by the Commissioner, Department of Mental Health and Mental Retardation.



wigs and lace at their sleeves. They were much given to drinking, gaming and horse racing.

It is not certain what treatment was given to Zachariah Mallory.

Benjamin Rush, in Philadelphia, although an advocate of non-restraint or "moral" treatment, was at that time promoting the use of purging and puking, blisters and clysters for mental illness. However, he believed that madness was due to congestion of blood in the brain and phlebotomy was his

favorite treatment. Benjamin Rush also used a tranquilizer in the form of a straight backed chair with arrangement to restrain the head, legs and arms with straps. He is quoted. "It has the advantage over a strait waistcoat. It lessens the force of blood in its determination to the head by opposing its gravity to it and, by keeping the head in a fixed and erect position, it prevents the interruption of the passage of blood to and from the brain by the pressure upon any of its blood vessels. It produces more general muscular inaction and, of



Benjamin Rush's tranquillizing chair.

course, acts more powerfully in wakening the forces of the blood vessels in every part of the body. It places a patient in a situation in which it is possible without any difficulty to apply cold water, by means of a bladder to the head and warm water to the feet at the same time. It enables the physician to feel the pulse and to open a vein without relieving other parts of the body from its confinement. It enables him likewise to administer purgative medicines without subjecting the patient to the necessity of being moved from his chair or exposing him to the feter of his excretions or their contact with his body. The body of the patient in this chair, though in a state of cohesion, is so perfectly free from pressure that he sometimes falls asleep. His position in this chair is less irritating to his temper and much less offensive to the feelings of his friends than in a strait waistcoat."

A few months after the first patient was admitted to the new Publick Lunatic Asylum in Williamsburg, a band of patriotic Bostonians in the north, disguised as Indians, boarded some British ships and threw overboard tea from England, one of the incidents that precipitated the Revolutionary War. During this war, the asylum in Williamsburg was closed for lack of funds and military troops were quartered there.

Let us now overlook nearly 100 years and come to the Civil War.

Dr. John Minson Galt, II, a native of Williamsburg trained in Philadelphia, was at that time the first full time medical superintendent of the asylum. He was one of the most outstanding psychiatrists in America. He was one of the founders of The Association of Medical Superintendents, which was later to become The American Psychiatric Association. He could read all European languages. His textbook on the treatment of insanity was a compendium of authority derived from books,

magazines, and articles from all over Europe and America. Dr. Galt was a pioneer in occupational and recreational therapy. He was also certainly one of the first to pioneer in educational therapy, having instituted a program with academic certification for his patients, including music. Dr. Galt was one of the first to appoint a full time chaplain to the hospital. He boarded many of his patients with residents of Williamsburg and invited the ladies of the town into his hospital, thus furnishing basis for the claim that he was also a founder in what is now considered such modern treatment as foster home care, halfway houses and volunteer services.

He corresponded with Dorothea Dix, who was largely responsible for mental hospital reforms in the United States over 100 years ago, and she visited him in his home.

Dr. Galt, in his famous "Treatise on Insanity" deplored the extensive use of blood-letting in the treatment of mental illness. He was a strong believer of "moral treatment".

Broadly defined, moral treatment to him was occupational therapy. It was provided in those days by wood carving, spinning equipment "to any such persons capable of using the same." Activities ranged from music, games, arts and crafts to industrial and housekeeping tasks, gardening and educational programs.

At the age of 53, Dr. Galt was a frail gentleman in poor health. He died soon after the occupation of Williamsburg by Federal troops.

The hospital continued to operate as a mental hospital throughout the Civil War under the administration of the victorious Northern Army.

Time will not now permit a chronicle of the past 100 years and of more recent wars. With ups and downs, this institution has shown steady progress in the humane and enlightened moral treatment of the mentally ill.



# **Medicare—Part B . . . .**

## **Chronic Renal (Kidney) Disease (CRD)**

CURTIS J. KELLY, JD

Effective July 1, 1973, Medicare coverage is extended to persons under age 65 who require hemodialysis, peritoneal dialysis, or renal (kidney) transplantation for chronic renal disease. Persons eligible for this coverage are those who are currently fully insured, or entitled to monthly Social Security or Railroad Retirement benefits, or the spouses or dependent children of such insured or entitled individuals. The Medicare coverage afforded on the basis of chronic renal disease (CRD) is identical to the coverage provided for individuals who are over 65 or who are entitled on the basis of disability. Billings by facilities (institutions or kidney centers) for CRD treatment rendered on or after July 1, 1973, are to be processed by the Part A Intermediary. Claim submission should always be done under the health insurance number of the person with CRD. This is the number which appears on the patient's health insurance card (all CRD beneficiaries under age 65 are being issued new health insurance numbers). If services of a kidney donor are involved, claim submission should be done under the account number of the person with CRD, not the donor's number.

Though both acute dialysis and maintenance dialysis for the stabilized patient with CRD are covered, the charge for the dialysis itself will be processed by the Part A Intermediary. It should be noted that it is possible for a beneficiary entitled to Medicare on a basis other than CRD (i.e., over 65 or disabled) to require acute dialysis on a temporary basis. Charges for the dialysis itself in such cases are also to be processed by the Part A Intermediary.

### **Part B Carrier Bill Processing**

Because performance of maintenance dialysis is generally not considered to require a phy-

sician's personal attendance, only in the cases in which some type of complication requires a physician's personal care can reimbursement be made for a physician's services during dialysis. However, when complications require it, physician services during dialysis would be allowable. Therefore, when bills are submitted for physician services rendered during dialysis, medical documentation must be obtained.

Regulations require detailed record keeping on CRD patients. We request that all treatment for injury or disease, to a CRD patient, carry a notation on the physician's bill, receipt, or SSA 1490 that the individual is a "CRD patient".

When treating a patient for one of the following where the primary diagnosis may lead to Chronic Renal Disease:

- Glomerulonephritis
- Primary Hypertensive Disease
- Polycystic Kidney Disease
- Hereditary Interstitial Nephritis
- Diabetic Nephropathy
- Pyelonephritis, obstructive
- Pyelonephritis, drug-related
- Pyelonephritis, non-obstructive
- Collagen Vascular Disease

Additional diagnoses leading to CRD are:

- Amyloidoses
- Cortical Necrosis, Bilateral
- Gouty Nephropathy
- Hypoplastic Kidney
- Myeloma Kidney
- Medullary Cystic Disease (Nephronophthisis)
- Oxalosis
- Cysterosis
- Thrombosis, renal arterial
- Thrombosis, renal venous

Toxic Nephropathy  
Radiation Nephritis  
Traumatic or Surgical loss of Kidney  
Hemolytic-Uremic Syndrome  
Thrombotic Thrombocytopenic Purpura  
Embolic Renal Disease  
Tumor  
Medullary Necrosis, Bilateral  
Retroperitoneal Fibrosis

Please indicate if CRD is involved or is expected to become involved. In that this new program required detailed documentation, please forward narrative reports, operative notes, discharge summaries, etc.

Payment of Medicare Claims on CRD patients will take approximately 60 to 90 days due to special requirements of the Social Security Administration.

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### Physicians Newly Licensed in 1972.

Another 14,476 licensed physicians were added to the U. S. medical profession in 1972—the largest increase in newly licensed physicians in any one year in the history of U.S. medicine.

The 18 per cent increase is reported in the 71st annual report on medical licensure statistics by the American Medical Association's Council on Medical Education, appearing in the July 16th issue of the *Journal of the American Medical Association*.

Of the 14,476 new physicians, 6,442, or almost one half, were graduates of foreign medical schools, reflecting for the sixth consecutive year a substantial increase in the number of foreign physicians taking state board examinations.

As of Dec. 31, 1972, there were 356,500 physicians in the United States. The total includes 314,527 licensed physicians, a net gain of 11,747 licensed physicians from the same date a year earlier after physician losses due to deaths, retirements and return of foreign medical graduates to their homelands.

The figures should not be interpreted as meaning that only 314,527 licensed physicians are qualified to take care of patients. Thousands of physicians, working under various medical, educational and government service permits contribute to patient care.

The report was compiled by the AMA staff under the supervision of Henry R. Mason, MPH, research associate, Department of Undergraduate Medical Education.



# The Medical Society of Virginia . . . .

## Minutes of Council

A meeting of the Council of The Medical Society of Virginia was held in the Nansemond Room of the Holiday Inn-Scope on Thursday, October 18.

*Members Present:* Dr. Carl E. Stark, Dr. John A. Martin, Dr. William S. Hotchkiss, Dr. Alvin E. Conner, Dr. James B. Kenley (for Dr. Mack I. Shanholtz), Dr. William J. Hagood, Jr., Dr. Raymond S. Brown, Dr. Charles E. Davis, Jr., Dr. Carrington Williams, Jr., Dr. George J. Carroll, Dr. Girard V. Thompson, Sr., Dr. H. C. Alexander, III, Dr. James C. Respess, Dr. Thomas L. Lucas, Dr. James Hal Smith and Dr. W. Leonard Weyl.

*Others Present:* Dr. K. K. Wallace, Jr., Vice-Speaker; Dr. William R. Hill and Dr. W. Callier Salley, AMA Delegates; and Dr. F. Ashton Carmines and Dr. Michael A. Puzak, Alternate AMA Delegates.

## Financial Report and Budget

Dr. Puzak, Chairman of the Finance Committee, reported that the Society has once again lived within its budget and that its financial condition had never been better. Although the proposed budget for 1973-74 was based on the current dues structure, a projected budget to meet the demands of the future was also ready should a Reference Committee of the House look with favor on Council's recommendation for an increase in dues. *A motion by Dr. Carroll to accept the Finance Committee's report and refer it to the House of Delegates was seconded and adopted.*

## Malpractice

A motion to discuss this particular subject in Executive Session was moved by Dr. Martin. *It was seconded and adopted.*

## VaMPAC

Upon adoption of a motion to emerge from Executive Session, Council considered a request from the VaMPAC Board of Directors that Dr. Robert Sullins Smith, Dinwiddie, be given serious consideration for District Chairman from the Fourth Congressional District. Dr. Smith would replace Dr. A. A. Kirk, who now becomes VaMPAC Chairman.

*A motion by Dr. Martin to elect Dr. Smith to the post of District Chairman from the Fourth Congressional District was seconded and adopted.*

## Committee on Family Life Education

Dr. Davis offered a resolution on behalf of the Norfolk County Medical Society which would provide for the appointment of a special Committee on Family Life Education. Such a Committee would be concerned with the importance of family planning, education in public schools, counseling service in hospitals, preparation of teachers for family life courses, etc. Following a motion by Dr. Davis that the resolution be adopted, it was determined that it should be brought to the attention of the House of Delegates and considered by a Reference Committee. *The motion was seconded and carried.*

## Abortion Guidelines

The Committee on Maternal Health had prepared a set of guidelines for therapeutic abortions in the first trimester. Should the guidelines be approved by Council, they would be made available to all members of The Medical Society of Virginia and hospitals within the State.

A question was raised as to whether the guidelines were worded in such manner that a physician would be required to provide his patient with all available information concerning therapeutic abortions even though such action might be contrary to his personal feelings and religious beliefs. It was agreed that the physician should not be requested to act contrary to his faith.

It was then agreed that the second guideline should be changed to read as follows:

"A physician who accepts consultation regarding termination of pregnancy has the responsibility to supply the patient with information regarding therapeutic abortions and other alternatives. This information is to include the medical facts of pregnancy and abortion, and should encompass these facts: the physical, mental and physiological effects of pregnancy and abortion."

*The guidelines were then adopted as amended.*

## Report of Council

Dr. Hagood suggested that Council be requested to meet at least thirty days prior to the Annual Meeting in order that it could review

those items which should be reported to the House of Delegates. It was agreed that such a meeting has much to recommend it and arrangements should be worked out by the President and Speaker.

### **Support for National Guard and Reserve Forces**

The Medical Society of Virginia has been requested by the National Committee for Employer Support of the Guard and Reserve to join other associations in pledging continuing encouragement and support of the National Guard and Reserve forces of the United States. Such support would be in the form of an agreement that the jobs and career opportunities of employees in the Guard or Reserve would not be limited or reduced as a result of their service. Also, absences for military training in the Guard or Reserve would not cause the employee to sacrifice his vacation time.

*A motion to join other members of the business community in supporting the Guard and Reserve was seconded and adopted.*

### **Public Health Service Hospital**

Dr. Davis reported that an inquiry had been received concerning the viewpoint of The Medical Society of Virginia on the proposed closing of the U. S. Public Health Service Hospital in Norfolk.

After some discussion it was agreed that the matter should be brought to the attention of the Norfolk County Medical Society for its consideration and such recommendations as might be advisable.

### **Charitable Immunity**

The Virginia Hospital Association has expressed the hope that The Medical Society of Virginia will once again resist any attempt in the General Assembly to abolish that portion of the Virginia Code having to do with charitable immunity for hospitals. It was learned that Virginia is one of eight states which has retained the charitable immunity provision in its Code.

There followed considerable discussion concerning the need of charitable immunity and it was brought out that malpractice rates for the hospitals concerned would increase remarkably should the immunity be lost. It would also force the cost of hospital care upward at a time when every effort is being made to hold the line.

*A motion by Dr. Hotchkiss to support the concept of charitable immunity and include it as a part of the Society's legislative package was seconded and carried.*

### **Collective Bargaining**

The Virginia Hospital Association has also requested the Society to support it in its opposition to legislation which would bring about mandatory collective bargaining in Virginia hospitals. Our hospitals have, for the most part, enjoyed immunity from strikes and work stoppages over the years. There are those who feel that an effort might well be made in the next session of the General Assembly to force the issue.

A motion was introduced by Dr. Martin which would oppose any legislative efforts to require mandatory collective bargaining in Virginia hospitals. The motion was seconded. During the discussion which followed, it was learned that some confusion existed as to just what was involved. Several members indicated that they did not wish to vote on the matter until they had more clear-cut information concerning the law at this time. Dr. Martin then withdrew his motion.

*A motion by Dr. Davis to postpone indefinitely was seconded and adopted.*

### **Voluntary Rate Review**

Mr. Osburn reported that the Virginia Hospital Association is anxious for the Society to support the voluntary hospital rate review concept. It is entirely possible that mandatory rate review will be proposed in the upcoming session of the General Assembly. It was agreed that no official action was advisable at this time.

### **Executive Sessions**

It was recalled that Council, on September 23, agreed to invite members of the news media to sessions of the House of Delegates. Since that time, several requests had been received for the matter to be discussed again.

There followed considerable discussion during which a suggestion was made that the question be taken to the House for a final decision.

Dr. Hagood then moved that members of the media be invited to all sessions of the House and its Committees. The motion was seconded.

Dr. Weyl then moved to amend the motion by making final permission subject to the House of Delegates. The proposed amendment was seconded but lost.

*Dr. Hagood's original motion was then adopted.*

### **Dr. Sammons**

Dr. James H. Sammons, Chairman pro tem of the AMA Board of Trustees, advised Council that AMA was more active than ever and making real progress with its various activities. He noted



that Virginia leads the Nation where AMA membership growth is concerned and stressed the importance of a united profession. He indicated that AMA is doing everything possible to improve its communications with the membership—one of the most difficult problems any organization must face today.

There being no further business, the meeting was adjourned.

ROBERT I. HOWARD, *Secretary*

APPROVED:

CARL E. STARK, M.D., *President*

## House of Delegates

### *First Session*

The House of Delegates of The Medical Society of Virginia met in the Ballroom of Norfolk's Holiday Inn-Scope on Thursday, October 18, 1973. The meeting was called to order at 2:00 P.M. by Dr. Carl E. Stark, President.

The invocation was delivered by Dr. James L. Hamner, a Past-President of the Society.

Dr. William J. Hagood, Jr., Speaker of the House, explained the Rules of Procedure and obtained their approval.

A report from the Credentials Committee was then requested and Dr. John T. Myles, Chairman, advised that a quorum was present.

Minutes of the November, 1972, session of the House were approved as published in the January, 1973, issue of the Virginia Medical Monthly.

Dr. Stark was then recognized for the purpose of introducing the Society's distinguished guests.

Dr. Richard M. Magraw, President, Norfolk Area Medical Center Authority, delivered a short message of welcome.

Mrs. William J. Reardon, President of the Woman's Auxiliary to The Medical Society of Virginia, was then introduced and presented an excellent report on Auxiliary activities during the year. It was indeed a year of accomplishment and the Auxiliary won numerous honors for its contributions to AMA-ERF and its work in such areas as mental health, nutrition and legislation.

Following Mrs. Reardon's address, Dr. Stark introduced Mrs. Donald F. Fletcher, Jr., President-Elect of the Auxiliary.

The House then heard Dr. James H. Sammons, Baytown, Texas, Chairman pro tem of the AMA Board of Trustees, discuss current AMA activities. Dr. Sammons congratulated Virginia on leading the entire Nation in percentage of AMA membership growth and stated that this was particularly important since the need of a united

profession has never been more evident than today. He also called for support of MEDICREDIT and covered the AMA position on PSRO.

Dr. Sammons called attention to the fact that Virginia's own Dr. Richard E. Palmer had just been named Vice-Chairman of the AMA Board of Trustees.

Introduced next was Dr. Alexander McCausland, Chairman of Virginia Medical Political Action Committee (VaMPAC). Dr. McCausland reported that VaMPAC membership was at an all time high of 1,100 and that its growth was continuing. During its ten years of existence, more than \$176,000.00 has been used for candidate support purposes. Of this amount \$100,000.00 was made available by AMPAC. Dr. McCausland went on to say that, although VaMPAC has devoted most of its effort to Congressional campaigns, it might well enter some State contests in the future. He reminded the House that VaMPAC provides the ways and means for physicians to become active in the realm of politics.

The following distinguished guests were then introduced: Dr. Thomas McCoy, President, West Virginia State Medical Association; Dr. George G. Gilbert, President, North Carolina Medical Society; and Dr. George Bates, representing the President of the Ohio State Medical Association.

Representing allied organizations were Mrs. Anna Jordan, President, Virginia Association of Medical Assistants and Mr. C. Robert Peery, representing the Virginia Hospital Association.

Dr. Stark delivered his Presidential Address, which will be published in its entirety in the December issue of the Virginia Medical Monthly. Among the many matters of interest discussed by Dr. Stark were PSRO, smallpox vaccinations, membership dues increase, etc. It was an extremely timely address—covering most of the items requiring decisions by the House of Delegates.

The Speaker then announced the various Committees serving the House and followed by naming the Chairmen of the various District delegations. He advised the delegates that the first caucus period should be used solely for the purpose of appointing caucus Chairmen and selecting a member of the Nominating Committee. Caucuses for the purpose of determining other nominees could be arranged at a time following adjournment.

Dr. Hagood went on to remind delegates from the First, Third, Fifth, Seventh and Ninth Districts that they should select nominees for Council. All Districts would select nominees for



Vice-Councilor. He also requested the Fifth District delegation to be prepared to submit three nominations for a possible appointment by the Governor to the Virginia State Board of Medicine.

Immediately following the caucus period the various nominees for the Nominating Committee were announced and the Committee duly elected.

A financial report and proposed budget for fiscal 1973-74 were presented by Dr. Michael A. Puzak, Chairman of the Finance Committee. Dr. Puzak called attention to the fact that the proposed budget was based on the current dues structure and that a projected budget—based on Council's proposed dues increase—would be made available to all delegates prior to the next session. The budget was referred to a Reference Committee for consideration the following day.

The Speaker announced that the annual Report of Council to the House was in the hands of all delegates and would be referred to a Reference Committee. Dr. Stark presented a short supplemental report recommending that the Society support the Virginia Hospital Association in its efforts to retain the charitable immunity provision in the Virginia Code. The supplemental report was likewise referred to a Reference Committee.

The various Committee reports were then received and referred to Reference Committees. Dr. Hagood recommended that all reports be completed and sent to the State office at least sixty (60) days prior to the meeting in order that they could be published in the Virginia Medical Monthly. He stressed again the importance that any recommendations for action by the House be clearly stated in a special section at the end of each report. This makes it much easier for all concerned and eliminates any possibility that the recommendations might somehow be missed.

Dr. Hagood advised the House that all resolutions previously distributed would be considered introduced and that reading them would not be necessary. Resolutions not previously published or distributed were called for with the request that only the "RESOLVED" portions be read. The following resolutions were then introduced and referred to Reference Committees:

Repeal of PSRO—Introduced by Dr. Charles A. Young, Jr.

Old Dominion Medical Society Representation on PSRO Committees—Introduced by Dr. J. Blaine Blayton

Control Procedures for Motor Vehicle Operators Having Diabetes—Introduced by Dr. James M. Moss

AMA Five Digit Code—Sponsored by Virginia Beach Medical Society

Early Detection of High Blood Pressure—Sponsored by Prince William County Medical Society

Total Emergency Medical Services—Introduced by Dr. William Grossmann

Family Life Planning—Sponsored by Norfolk County Medical Society

Tidewater Emergency Medical Services—Sponsored by Norfolk County Medical Society, Portsmouth Academy of Medicine and Virginia Beach Medical Society.

Dr. William Hotchkiss then introduced the following resolution which was adopted unanimously following suspension of the rules:

WHEREAS, Dr. Alexander McCausland has indicated that he will not stand for re-election as a Delegate to the American Medical Association, and

WHEREAS, Dr. McCausland has for many years served this Society in various official capacities—including those of President, Councilor, and chairman of numerous committees, and

WHEREAS, no physician in our State is more beloved and respected by his colleagues and patients, and

WHEREAS, his efforts to preserve the traditional freedoms which have made American medicine the best in the world have won him the admiration and gratitude of all Virginia physicians; therefore, be it

RESOLVED, that this House of Delegates express its deepest appreciation of Dr. McCausland's countless contributions to his State, his profession and his Society and direct that a Certificate of Distinguished Service be prepared for presentation at the 1974 meeting of The Medical Society of Virginia.

Dr. Hagood requested that the Committee on Nominations meet with him following adjournment in order that details of its meeting could be discussed.

The House was advised that Reference Committees would meet the following afternoon at 3:00 P.M. and that a complete Committee schedule would be posted in the registration area early Friday morning.

Delegates were also advised that a special AMA film would be shown immediately following adjournment and hope was expressed that all would remain to see it.

The Speaker reminded the House that should proposed amendments to the Constitution and By-Laws be adopted Saturday afternoon, it



would be necessary to convene a General Meeting of the Society immediately following adjournment.

Following announcement that the next meeting of the House would be on Saturday, October 20, at 3:00 P.M., the meeting was adjourned.

### *Second Session*

The second session of the House of Delegates was called to order by the Speaker at 3:00 P.M. on Saturday, October 20, 1973, at Norfolk's Holiday Inn-Scope. Dr. John Myles, Chairman of the Credentials Committee, indicated a quorum present and the *report of his Committee was accepted.*

The report of the Nominating Committee was then presented by its Chairman, Dr. William Grossmann:

Dr. William R. Hill was nominated President-Elect and unanimously elected.

Dr. Raymond S. Brown was elected First Vice-President; Dr. James C. Respass, Second Vice-President; and Dr. James S. Kitterman, Third Vice-President.

Robert I. Howard was re-elected Executive Vice-President.

Dr. William J. Hagood, Jr. was re-elected Speaker of the House and Dr. K. K. Wallace, Jr., was re-elected Vice-Speaker.

Nominations for Council were then reported and the following elected:

- 1st District: Dr. Harold L. Williams
- 3rd District: Dr. Carrington Williams, Jr.
- 5th District: Dr. Girard V. Thompson, Sr.
- 7th District: Dr. George M. Nipe
- 9th District: Dr. James Hal Smith

Elected as Vice-Counselors were the following:

- 1st District: Dr. Walter A. Eskridge
- 2nd District: Dr. Gervas S. Taylor, Jr.
- 3rd District: Dr. Charles M. Caravati, Jr.
- 4th District: Dr. Gordon G. Birdsong
- 5th District: Dr. Anthony J. Munoz
- 6th District: Dr. Douglas E. Pierce
- 7th District: Dr. Harry L. Westfall, Jr.
- 8th District: Dr. Harry C. Kuykendall
- 9th District: Dr. Joseph H. Early, Jr.
- 10th District: Dr. C. Barrie Cook

Nominations for the State Board of Medicine were then received from the Fifth District and the following names will be submitted to the Governor for his consideration:

- Dr. Edwin T. McNamee, Jr.
- Dr. Anthony J. Munoz
- Dr. Henry S. Campell

The Speaker announced that the terms of Dr. Alexander McCausland and Dr. William R. Hill as Delegates to the American Medical Association would expire December 31. The terms of their Alternates, Dr. F. Ashton Carmines and Dr. Michael A. Puzak, also expire at that time.

The names of Dr. Puzak, Dr. Carmines and Dr. Hotchkiss were placed in nomination. Dr. Puzak and Dr. Hotchkiss were elected.

The House was then advised that three Alternate Delegates must be elected since the unexpired term of Dr. Hotchkiss must be filled. Nominated were Dr. Percy Wootton, Dr. Thomas S. Edwards, Dr. Carl E. Stark and Dr. Arthur A. Kirk. It was determined that the two nominees receiving the greatest number of votes would be elected to two-year terms. The recipient of the third highest vote would serve a one-year term. *A motion to this effect was seconded and adopted.*

Elected for the two-year terms as Alternate Delegates were Dr. Stark and Dr. Carmines. Elected to the one-year term was Dr. Wootton.

Dr. George Nipe then obtained consent of the House to introduce the following resolution of appreciation *which was seconded and adopted:*

RESOLVED, that the House of Delegates express to the Committee on Arrangements of the Norfolk County Medical Society and the Program Committee of The Medical Society of Virginia its sincere appreciation for one of the finest of all Annual Meetings; and be it further

RESOLVED, that the Staff of the Holiday Inn-Scope be thanked for its part in making the meeting such a pleasant and memorable event.

The Speaker then called for the reports of the Reference Committees and introduced Dr. Gervas Taylor, Jr., Chairman of Reference Committee No. 1.

### REFERENCE COMMITTEE NO. 1

#### *Committee Reports*

*The following reports were adopted* as recommended by the Committee: AMA Delegates, Executive Vice President, Publication, Insurance, Environmental and Occupational Health, Rehabilitation, Insurance Review, Regional Medical Program, Medical Aspects of Sports, and Advisory to Virginia Hospital Association.

#### *Resolution on High Blood Pressure*

(Sponsored by Prince William County Medical Society)

After agreeing that the "RESOLVED" portion should be amended by including the names of the

various cooperating Associations, *the resolution was adopted* as follows:

WHEREAS, it is estimated in the United States over 23 million people have high blood pressure, and

WHEREAS, heart attacks, strokes and death occur commonly with high blood pressure, and

WHEREAS, in an estimated half of the cases high blood pressure may be present without symptoms, at a stage where treatment usually is most effective, and

WHEREAS, the taking of blood pressure is a simple screening tool for the detection of high blood pressure; therefore, be it

RESOLVED, that The Medical Society of Virginia join with the National Institutes of Health, The American Heart Association, The American Academy of Family Physicians and other groups and endorse screening for high blood pressure by the private physician in his office and by organized public clinics.

#### *Resolution on Professional Standards for Athletic Trainers*

(Sponsored by Committee on Medical Aspects of Sports)

The House agreed with the Committee that minor editorial changes were needed in the second "WHEREAS". *The amended resolution was then adopted* as follows:

WHEREAS, the American Medical Association and The Medical Society of Virginia have long recognized the importance of proper health supervision in providing athletics for participants, and the relationship of such supervision to the promotion of the art and science of medicine and the betterment of public health is clearly evident, and

WHEREAS, in 1967, the AMA House of Delegates recognized the fine rapport developed between the Committee on the Medical Aspects of Organized Athletics and the National Athletic Trainers Association (NATA), and lauded the development of professional standards by the NATA and further recommended that all athletic teams have the benefit of a professionally prepared athletic trainer as a part of the medical supervisory team, and

WHEREAS, the AMA House of Delegates specifically approve the following recommendations, that:

1. The AMA recognized the importance of the role of the professionally prepared athletic trainer as a part of the team re-

sponsible for the health care of the athlete; and

2. The NATA be commended for its efforts to upgrade professional standards, since improved preparation and continuing education enable athletic trainers to work effectively with physicians in the health supervision of sports; and
3. State and local medical societies and physicians individually be encouraged to help advance the professional goals of the NATA in their communities through appropriate liaison activities; and

WHEREAS, in 1969, the House of Delegates of the AMA urged the creation of athletic medical units in all schools having sports program and that such units have athletic trainers or athletic health coordinators, and

WHEREAS, the NATA has just formulated an outstanding set of procedures for certification based on educational preparation, years of experience, continuing education, apprenticeship training and certifying examinations, all evaluated by a Board of Certification composed of physicians and qualified athletic trainers, and

WHEREAS, the MSV Committee on the Medical Aspects of Sports has, unanimously, approved this resolution, therefore be it

RESOLVED, that the MSV go on record as officially recognizing NATA's certification procedures and certification board, and be it further

RESOLVED, that the Virginia State Board of Education where and when possible recommend to local boards of education the appointment of certified athletic trainers (NATA) to work with physicians in the important area of health and supervision of athletes, and, be it further

RESOLVED, that a copy of this resolution be sent to the National Athletic Trainers Association, the Superintendent of Public Instruction of the Commonwealth of Virginia, the Board of the Virginia High School League, and the Board of the Virginia High School Coaches Association.

#### *Report of Council*

*The House*, acting on the Committee's recommendation, *approved* that portion of the Report of Council having to do with the proposed plan for PSRO in Virginia.

#### *PSRO*

It was the Committee's recommendation that the proposed plan for PSRO in Virginia—and its



Constitution and By-Laws—be approved. It recommended further that the plan be implemented as soon as necessary funds could be made available and when it becomes clear that no substantive changes will be made. The Committee report went on to say that should substantive changes be made in the plan, it should not be implemented until first brought before the Council of The Medical Society of Virginia and then to the House of Delegates for final approval in its totality.

*The Committee's recommendations were adopted.*

*Resolution Having to do with Representation of Old Dominion Medical Society on PSRO Policy Committees*

This resolution was considered jointly with a letter from the Virginia Osteopathic Medical Association since both were concerned with representation on PSRO policy making bodies.

The Committee noted that under the proposed plan for PSRO, members of both Associations automatically become members of the Foundation upon application. This means that they would then become eligible to serve on physicians standards panels, case review panels and the Board of Directors.

*The House then approved the Committee's recommendation that any action be postponed indefinitely.*

*Presidential Address*

*The House accepted the Committee's recommendation and approved paragraphs 11, 12, 13, 14, 15 and 16 of Dr. Stark's Presidential Address. These paragraphs were largely concerned with PSRO and Dr. Stark's contacts with representatives of HEW.*

*Constitution and By-Laws*

Acting upon the recommendation of the Committee, *the House amended* Article IV of the Constitution by adding the following sentence:

"As it applies to this Constitution and By-Laws, the word physician means doctor of medicine or doctor of osteopathy."

(The purpose of the above amendment is to make it possible for doctors of osteopathy, who are members in good standing of component medical societies, to become members of The Medical Society of Virginia.)

*The House also amended* the second paragraph

of Section 1, Article I of the By-Laws by adding a sentence to read as follows:

"As it applies to this Constitution and By-Laws, the word physician means doctor of medicine or doctor of osteopathy."

(The above amendment is also for the purpose of making it possible for doctors of osteopathy to become members of The Medical Society of Virginia.)

*Resolution on Repeal of PSRO*

(Sponsored by Arlington County Medical Society and similar Resolution introduced by Dr. Charles A. Young, Jr.)

The Reference Committee noted that these two resolutions were considered jointly since their objectives were basically the same. It recommended a substitute resolution which received careful consideration by the House.

Dr. Salley then introduced an amended version of the substitute resolution which was *adopted in the following form:*

WHEREAS, Public Law 92-603 has established Professional Standards Review Organizations with authority to overrule a physician's decision on the necessity of hospitalization or other treatment; and

WHEREAS, Even if such a service is deemed necessary, the PSRO is authorized to determine who should provide the service and where it should be provided; and

WHEREAS, The medical profession has been led to believe that it will have control of such organizations, although in fact it is plainly stated in over a dozen places that the secretary of HEW, or his delegated representative, shall have final authority in all matters; and

WHEREAS, The secretary of HEW is empowered to hold financially responsible any physician judged to have failed in his obligation to PSRO standards; and

WHEREAS, We believe this law would deprive physicians and patients of their rights as citizens under the Fourth, Fifth, Seventh, and Ninth Amendments to the Constitution; and

WHEREAS, The Association of American Physicians and Surgeons has filed suit against the Department of Health, Education and Welfare on the grounds that the law is unconstitutional; and

WHEREAS, A bill, H.R. 9375 has been introduced in Congress which would repeal those provisions of Public Law 92-603 having to do with PSRO; therefore, be it

RESOLVED, That The Medical Society of Vir-

ginia publicly announce its approval of the lawsuit initiated by the Association of American Physicians and Surgeons, and that the membership be encouraged to use every practical means to bring about a successful termination of this lawsuit; and be it further

RESOLVED, That The Medical Society of Virginia publicly announce its support of H.R. 9375, which would repeal this section of PL 92-603 and that the membership work toward this goal; and be it further

RESOLVED, That the Virginia Delegates to the AMA introduce this resolution in the House of delegates of the AMA at the next meeting, and that copies of this resolution be sent to the President of each of the forty-nine other state medical societies.

*The report of Reference Committee No. 1 as a whole was then adopted as amended.*

Dr. George Nipe was then introduced for the purpose of presenting the report of Reference Committee No. 2.

## REFERENCE COMMITTEE NO. 2

### *Committee Reports*

The following reports were approved as recommended: Ethics, Legislation, Mental Health, Liaison to State Bar, Maternal Health, Highway Safety and Supplemental Report on Highway Safety.

Also accepted was the Committee's recommendation that the report of the Public Relations Committee be approved with the request that it become more active and productive.

### *Report of Council*

The following items contained in the Report of Council were approved: Hospital Boards of Trustees, FDA, Acupuncture, Student Component Society, Emergency Medical Services, Constitution and By-Laws, Prisoners of War and Immunity for Peer Review Committees.

That portion of the report having to do with Rules of Procedure was approved with the recommendation that *the last sentence of Section 1, Article V of the By-Laws be deleted*. Such deletion will remove from Council the responsibility of reviewing the Rules of Procedure and clear the way for appointment by the Speaker of a special committee of the House for this purpose.

### *Presidential Address*

Acting upon the Committee's recommendation, the House received paragraphs 4, 5, 6, 7 and 8

of Dr. Stark's Presidential Address and commended him on his remarks.

### *Speaker's Remarks*

Although the Reference Committee had recommended endorsement of the Speaker's remarks in principle, *the House deleted the words "in principle"* in order to strengthen the Speaker's recommendations. Dr. Hagood strongly urged that reports of the various Committees and the names of all Delegates and Alternates be filed with the State office at least 60 days prior to the Annual Meeting.

### *Constitution and By-Laws*

*The House agreed* with the recommendation that Section 4 of Article II of the By-Laws be amended in such manner as to remove from the rolls of the Society the name of any member whose dues are six (6) months in arrears. It was noted that this amendment is necessary because of the Society's new computerized billing system.

*Also amended* was the first sentence of the third paragraph of Section A, Article IX of the By-Laws. This amendment provides for the Legislative Committee to be appointed annually to serve at the pleasure of the President. It further provides that it shall consist of not more than fifteen (15) members—with at least one member from each Congressional District. The purpose of the amendment is to provide the greater flexibility and overall strength the Committee obviously needs today. It will also permit the President to exercise his judgment in meeting problems which could well arise unexpectedly.

### *Resolution on Drivers' Licenses for Patients With Diabetes*

(Introduced by Dr. James M. Moss)

Although the Committee recommended that the first "RESOLVED" of this resolution be deleted, the House determined that it should remain in its original form. *The adopted resolution reads as follows:*

WHEREAS, patients with improperly treated diabetes mellitus are susceptible to sudden loss of consciousness and consequently may rarely be a hazard on the highways, and

WHEREAS, the Division of Motor Vehicles of the Commonwealth of Virginia has effectively controlled this problem in the past two decades by requiring a physician's statement that the patient can safely operate a motor vehicle each time the license is renewed, and



WHEREAS, the Division of Motor Vehicles has arbitrarily changed this procedure in recent weeks to require a notarized statement from each patient that he has had no episodes of unconsciousness in the previous twelve months, and

WHEREAS, this new procedure is an unjustified discrimination against and is an unnecessary hardship upon patients with diabetes and furthermore is of dubious scientific, legal, or personal value, therefore, be it

RESOLVED, that The Medical Society of Virginia request that the Division of Motor Vehicles return to the previous procedure of requiring a physician's statement every three years, and that they make no further procedural changes without the consultation of The Medical Society of Virginia, further, be it

RESOLVED, that the President of The Medical Society of Virginia appoint an ad hoc committee on diabetes to deal with problems related to this disease.

*Resolution on Admission of Patients Over 65 Years of Age to State Mental Hospitals*  
(Sponsored by Mid-Tidewater Medical Society)

After accepting a minor editorial change, the following resolution was adopted:

WHEREAS, many Virginia physicians have experienced some difficulty in getting patients over 65 years of age admitted to state mental hospitals, and

WHEREAS, this difficulty can often be attributed to unnecessary and unreasonable delays in obtaining reports from psychologists with reference to the need of hospitalization for disturbed, senile patients requiring constant surveillance, and

WHEREAS, such delays can sometimes endanger both patients and others, therefore, be it

RESOLVED, that The Medical Society of Virginia seek to remedy this situation by consulting with the Department of Mental Health and Mental Retardation in an effort to devise ways and means of permitting prompt admission and care to those in immediate need.

*Resolution on Reference Committee Makeup*  
(Sponsored by Arlington County Medical Society)

A recommendation that this resolution not be adopted was rejected. *The resolution was then adopted and reads as follows:*

WHEREAS, the House of Delegates is faced each year with the necessity and responsibility of making decisions of the greatest importance to physicians from all areas of the State; and

WHEREAS, it seems advisable that each Congressional District be represented in the deliberations of Reference Committees considering these crucial issues; therefore, be it

RESOLVED, that each Reference Committee of the House of Delegates be composed of at least one member from each Congressional District.

*Legislative Package*

*The House agreed* with the Reference Committee that the legislative package (as published in the September issue of Virginia Medical Monthly) should be approved with the exception of that portion having to do with an Abortion Bill. It was agreed that that particular section did not contain sufficient information to reach a decision and that it should be referred back to the Maternal Health Committee for further study.

*Also approved* was a Supplemental Report of Council supporting efforts to retain in the Virginia Code those provisions permitting charitable immunity for hospitals.

*The report of Reference Committee No. 2 as a whole was then adopted as amended.*

Dr. Harry Kuykendall was next called upon for the report of Reference Committee No. 3.

REFERENCE COMMITTEE NO. 3

*Committee Reports*

In keeping with the Committee's recommendation, the following reports were approved: Medical Education, Medicine and Religion and Nursing.

The House also approved the report of the Membership Committee and agreed with its recommendations that Dr. Stark be accorded honorary active membership.

Also approved was the report of the Committee on Health Careers. *The House concurred* with the Reference Committee in its recommendation concerning appointment by local medical societies of contact physicians to the Virginia Health Careers Program.

*Resolution on Family Life Planning*  
(Sponsored by Norfolk County Medical Society)

*The House agreed* that, although the resolu-

tion possessed considerable merit, it should be referred to Council for further study and such action as might be deemed appropriate.

#### *Resolution on Rehabilitation Award*

(Sponsored by Committee on Rehabilitation)

The House congratulated Dr. William D. Rusher on being nominated to receive the award of the President's Committee for the Physically Handicapped and *adopted the following resolution:*

RESOLVED, that William D. Rusher, Richmond, Virginia, be nominated to receive the Award of the President's Commission for the Physically Handicapped and the Governor's Award Committee as the doctor doing the most toward the employment of the physically handicapped in Virginia.

#### *Resolution on AMA Five Digit Code*

(Sponsored by Virginia Beach Medical Society)

Acting upon the Committee's recommendations, the House amended the first and third "RESOLVED" by inserting the words "and other fiscal intermediaries". An additional "RESOLVED" was added in order to specifically designate the AMA Current Procedural Terminology for use in the coding of services. *The adopted resolution—as amended—reads as follows:*

WHEREAS, The Medical Society of Virginia has previously requested Blue Shield of Virginia to implement the AMA five digit code; and

WHEREAS, the AMA five digit code has not been implemented by Blue Shield of Virginia nor has it set a date for its implementation; and

WHEREAS, the increasing complexity of medical practice requires the availability of additional code numbers; and

WHEREAS, as broad acceptance as possible of a standard five digit code is desirable to ease the burden of completing claim forms, especially in the expanded use of electronic data processing; therefore, be it

RESOLVED, that The Medical Society of Virginia again urges Blue Shield of Virginia and other fiscal intermediaries to implement the AMA five digit code; and be it further

RESOLVED, the Board of Directors of Blue Shield of Virginia be requested to report to Council on the progress of implementation in six months or less; and be it further

RESOLVED, the Board and officers of Blue

Shield of Virginia be encouraged to urge the acceptance of the AMA five digit code by the National Association of Blue Shield Plans and other fiscal intermediaries; and be it further

RESOLVED, that the members of The Medical Society of Virginia employ the Current Procedural Terminology of AMA for coding of services.

#### *Resolution on Total Emergency Care*

(Introduced by Dr. William Grossmann)

After agreeing with the Committee that the last "RESOLVED" should be amended by eliminating reference to a committee of five, *the House adopted the resolution in the following form:*

WHEREAS, accidents are the leading cause of death among persons between the ages of one and thirty-seven and are the fourth leading cause of death at all ages; and

WHEREAS, the care of accident cases imposes a staggering load on physicians, para medical personnel, and hospitals; and

WHEREAS, it has been estimated that one in five persons who die in emergency situations could be saved by more modern equipment and treatment, more promptly applied at the scene of the accident, en route to the Emergency Room, and at the hospital; and

WHEREAS, the Virginia State Department of Health, under authority of Title 34, Chapter 16.1, Code of Virginia, with the advice of the Virginia Advisory Committee on Emergency Medical Services, has developed a statewide plan for emergency ambulance services recognized as one of the best in the nation; and

WHEREAS, the Department is presently drafting a comprehensive plan, incorporating all other components of a statewide emergency services system; therefore, be it

RESOLVED, by The Medical Society of Virginia that the Department be commended for its efforts toward improving emergency medical services in Virginia and that it be urged and encouraged to develop a plan which will provide total emergency care from the time of the emergency through resuscitation, definitive care and rehabilitation by the maximum use of technological support throughout the cycle; and be it further

RESOLVED, that the Committee on Emergency Medical Services assist the Department in its plan and serve as a liaison body between the Department and The Medical Society of Virginia.



*Resolution on Tidewater Emergency Medical Services*  
(Sponsored by Norfolk County Medical Society, Portsmouth Academy of Medicine and Virginia Beach Medical Society)

The House was in agreement that the "RESOLVED" of the resolution should be amended by simply endorsing the concept of the proposed Tidewater Emergency Medical Services System. *The resolution, as adopted, reads as follows:*

WHEREAS, both The Medical Society of Virginia and the Commonwealth of Virginia have acknowledged the importance of high-quality Emergency Medical Services, organized in a comprehensive, coordinated, statewide plan, and

WHEREAS, we, of the Tidewater region have initiated a proposal for the development of the Tidewater Emergency Systems in Southeastern Virginia, and

WHEREAS, this represents a detailed plan with both long and short term goals, awaiting only funding for immediate implementation at the regional level, and

WHEREAS, this proposal addresses all major elements of an EMS system, and

WHEREAS, specific priority is focused on access, communication, and coordination, and

WHEREAS, this proposal is presented by (1) stating the problems and goals (2) describing the applicant and area as they relate to emergency medical services, and (3) outlining the present and proposed elements of the Tidewater EMS system, and

WHEREAS, the last section is developed on the framework of the envisioned Tidewater Emergency Medical Services (TEMS) Council By-Laws and Committee structure, and

WHEREAS, this methodology provides a clear indication of the importance of coordination and proves the integrity of the Council's organization plan with the actual requirements of the EMS system, now, therefore, be it

RESOLVED, that The Medical Society of Virginia endorse the concept of the proposed Tidewater Emergency Medical Services System.

*Presidential Address*

The Reference Committee commended the President on a very excellent address and recommended that Paragraphs 1, 2, 9, 10 and 17 be accepted. *The House concurred.*

Also accepted was Paragraph 3 which con-

tained three recommendations having to do with (1) establishment of a Joint Practice Committee, (2) continued opposition to drug substitution legislation, and (3) abolition of existing requirements for smallpox vaccination as a requirement for the school aged child.

*Financial Statement and Proposed Budget 1973-74*

The Committee pointed out that additional revenue is vitally necessary if the Society is to effectively meet the challenges and demands of the future. In keeping with its recommendation, *the House voted to increase membership dues from \$60.00 to \$85.00. It also agreed with the Committee's recommendation that the following budget for fiscal 1973-74 be adopted:*

EXPENSES:

Salaries .....	\$118,666.00
Telephone & Telegrams .....	3,150.00
Postage .....	2,500.00
Stationery and Supplies .....	3,000.0
Office Equipment—Repairs & Replacements..	3,000.00
Building Maintenance — Repairs—net .....	17,000.00
Convention Expenses .....	6,800.00
Council and Committee Expense .....	8,900.00

*Travel Expense:*

Executive Assistant .....	475.00
Delegates to AMA .....	6,000.00
President .....	3,000.00
Executive Vice President .....	2,000.00
Component Society Liaison .....	1,750.00
Virginia Medical Monthly .....	45,000.00
Legal Expense .....	15,000.00
Legislative Program .....	20,000.00
Walter Reed Commission .....	500.00
Woman's Auxiliary .....	100.00
Revision of Constitution and By-Laws .....	3,000.00
Membership Dues (Affiliated Organizations)..	680.00
Editor—Virginia Medical Monthly .....	1,000.00
VaMPAC (Educational Fund) .....	12,000.00
News and Views .....	1,000.00
Retirement Fund .....	21,500.00
Payroll Taxes .....	5,000.00
Public Relations .....	1,500.00
Miscellaneous .....	850.00

*Special Appropriations:*

Virginia Council .....	5,000.00
AMA-ERF .....	1,000.00
Rural Health .....	500.00
Scholarship—MCV—(Administered by The Medical Society of Virginia) .....	2,000.00
Scholarship—UVA School of Medicine—(Administered by The Medical Society of Virginia) .....	2,000.00
Scholarship—Eastern Virginia Medical School—(Administered by The Medical Society of Virginia) .....	2,000.00
National Society for Medical Research ....	150.00
Miscellaneous AMA .....	600.00

Building Fund .....	25,000.00
TOTAL .....	\$341,621.00

### Report of Council

That portion of the report having to do with staff reorganization was approved.

*Approved also was that portion pertaining to computer codes.*

The House agreed with the Reference Committee that the present Committee on Nursing should be dissolved and a Virginia Joint Practice Committee established in its place. The Joint Practice Committee will be composed of eight members representing The Medical Society of Virginia and a similar number representing the Virginia Nurses' Association.

The Reference Committee reported that it had given the most careful consideration to that portion of the report having to do with the Joint Committee on Medical Fees. It recommended that the Joint Committee's first three recommendations be approved and that recommendations 4 and 5 be amended by deleting reference to the collection and handling charge for urine specimens, etc., and by adding component medical societies to the review process.

A further recommendation pertaining to payment for the drawing of blood also had the Committee's approval.

*The House concurred with all Reference Committee recommendations and the following recommended guidelines were adopted:*

1. The fee charged for each service should be based upon the cost of providing that service by the most efficient high-quality method that is available plus a reasonable compensation for the professional skill and time that is required.
2. Excessive charges for one service should not be used to compensate for inadequate charges for another service—i.e., no department of a hospital should subsidize another department.
3. In applying usual, customary and reasonable guidelines, such factors as providing emergency service at night and on weekends, taking care of indigent patients, and sponsoring educational programs must be considered, but these factors should not be used as an excuse for excessive charges.
4. These same principles should be applied to all other diagnostic procedures, such as blood counts, electrocardiograms, electroencephalograms, and x-rays. Physicians

should not make a profit from selling another physician's professional opinion.

5. If these guidelines are to be effective, it will be necessary for third-party payers and patients to refer all questionable charges to a Review Committee of The Medical Society of Virginia or its appropriate component society for adjudication.
6. When physicians draw blood and send it out to a commercial laboratory for testing, they should be paid a reasonable fee to cover the costs of drawing the blood, but they should not be paid or expect a fee for interpreting the results of these tests, as this interpretation has already been paid for when the patient pays for the office visit.

### Continuing Medical Education

The House was advised that the Reference Committee had received a great amount of testimony concerning a recommendation by Council that continuing education be made a requirement for membership in The Medical Society of Virginia. It noted that Council had also recommended that a pilot program of continuing education be undertaken.

It was the consensus that the question, because of its great importance, should be divided and that the proposal to relate continuing education to Society membership should be considered first.

It was the Committee's recommendation that the proposal not be adopted and *the House*, after some debate, *agreed*. Dr. Kuykendall had requested that he be placed on record as favoring Council's recommendation that continuing education be related to Society membership.

The Reference Committee then offered a modification of the recommendation that a pilot program of continuing education be undertaken. Dr. Alexander moved to amend the proposed modification by deleting the word "implementation" and substituting instead the word "consideration". *The motion to amend was adopted.*

A motion by Dr. Young to delete the word "universal" was seconded but lost.

Dr. Binder moved to amend the proposed modification further by deleting reference to "the Virginia State Board of Medicine". *His motion was seconded and carried.*

After agreeing to a minor editorial change, *the House adopted the following modification as amended:*

"The Medical Society of Virginia reaffirms the concept of universal continuing medical education and recommends the establishment of



a Medical Education Commission composed of representatives of The Medical Society of Virginia and the three medical schools to establish a statewide program for continuing education. This Commission should make its recommendations to the Council for consideration at the 1974 meeting of the House of Delegates."

Dr. Gorsuch then presented an addendum to the report of the Reference Committee calling for the issuance of a Certificate of Achievement by The Medical Society of Virginia. The Certificate would be in addition to that awarded by the American Medical Association.

A motion to provide for the issuance of such Certificates was lost.

*The report of Reference Committee No. 3 as a whole was then adopted as amended.*

Dr. Martin briefed the House on his plans for a stepped-up legislative program in the various Districts. He expressed confidence that the District programs would greatly strengthen the Society's legislative program during the coming year.

A special word of thanks was extended Dr. Sammons for his numerous contributions during the meeting. It was agreed that his participation had brought AMA and The Medical Society of Virginia a great deal closer together.

A special introduction was accorded David Hyman and Gary Miller, Delegates from the newly chartered Student Component Medical Society of the Medical College of Virginia.

Dr. Hill then thanked the House for having made it possible for him to represent the Society as an AMA Delegate.

There being no further business, the meeting was adjourned.

ROBERT I. HOWARD, *Secretary*

APPROVED:

WILLIAM J. HAGOOD, JR., M.D., *Speaker*

## General Session

A general session of The Medical Society of Virginia was held at Norfolk's Holiday Inn-Scope on Saturday, October 20, 1973. The session was called to order by Dr. Carl Stark, President, at 5:30 P.M.

*An amendment to the Constitution which had been adopted by the House earlier in the day was then ratified.* This amendment defines the word "physician" as meaning either doctor of medicine or doctor of osteopathy.

*Also ratified were amendments to the By-Laws—likewise adopted earlier by the House.* These

amendments define the word "physician", provide for the removal from the rolls of the Society those members whose dues are six (6) months in arrears, and provide for the Legislative Committee to be appointed annually to serve at the pleasure of the President. The Committee shall consist of not more than fifteen (15) members—with at least one member from each Congressional District.

There being no further business, the general session was declared adjourned.

The following reports were presented to the House of Delegates but have not been previously published.

### Supplemental Report Committee on Highway Safety

The Committee on Highway Safety met recently and has the following recommendations:

#### SAFETY BELT LEGISLATION

This committee feels strongly that a mandatory safety belt law should be passed in the 1974 Virginia General Assembly. Further, we recommend that The Medical Society of Virginia endorse and support this effort.

#### SCHOOL BUS DRIVER PHYSICAL EXAMINATION FORM

The current form was discussed in detail and the committee felt it advisable to leave this form as it is presently written. We also advise that the minimum age to drive a school bus be raised to 18 years.

#### RESOLUTION ON LABELING OF DRUGS WHICH CAUSE DROWSINESS

The Committee proposes the following resolution and strongly recommends its adoption:

RESOLVED, the the Virginia Pharmaceutical Association be requested to go on record as urging all pharmacists to label medications capable of causing drowsiness with the following or a similar warning "May Cause Drowsiness—Use Care When Operating a Car or Dangerous Machinery"—unless otherwise indicated by the prescriber.

It should also be known that the Virginia Orthopedic Society and the Virginia Highway Safety Commission have requested the Virginia Pharmaceutical Association to undertake this project.

## EMERGENCY MEDICAL SERVICES ADVISORY COMMISSION

It has been recommended by the State Health Department, Division of Emergency Medical Services, that an Emergency Medical Services Advisory Commission be established for each locality. This committee feels this is very much needed and would result in better coordination of emergency services to the sick and injured. Therefore, we respectfully request The Medical Society of Virginia to participate in this effort.

ROBERT W. WADDELL, M.D., *Chairman*

H. DESMOND HAYES, M.D.

CHARLES L. MCDOWELL, M.D.

E. D. V. NICOLL, M.D.

### Medical Aspects of Sports

Your Committee has expanded its activities in the following areas:

1. Fostered a Medical Society resolution to encourage local boards of education to appoint certified (NATA) athletic trainers to work with physicians in the important area of the health and supervision of athletes.
2. Fostered continued liaison with the Virginia High School League including the re-institution of medical programs to the annual coaches clinic.
3. Aided and encouraged local medical societies to establish committees on the medical aspects of sports.
4. Encouraged local medical societies to establish liaison with local school systems for the purpose of instituting local annual medical sports programs and insure the health of athletes in their region.
5. Participated in regional coaches programs when applicable.
6. Established a speakers bureau to supply local sports programs with speakers when needed to support local programs.

The Committee was disappointed in not receiving time to present a program directed toward physicians at the annual Virginia Medical Society meeting.

ROBERT P. NIRSCHL, M.D., *Chairman*

GERVAS S. TAYLOR, JR., M.D.

RICHARD H. FISHER, M.D.

FRANK C. MCCUE, III, M.D.

VIRGIL R. MAY, JR., M.D.

EMORY R. IRVIN, M.D.

OSCAR W. WARD, JR., M.D.

J. THOMAS HULVEY, M.D.

JOEL A. MASON, M.D.

JAMES B. JONES, M.D.

## Regional Medical Program Committee

The Virginia Regional Medical Program suffered severely in 1973 as a result of presidential and HEW decisions to be phased out by February 15, 1974. As requested, VRMP submitted phase out plans. All projects were stopped and activities discontinued beyond June 30, 1973. Because of prior commitment, The Emergency Coronary Care Project was to be funded through September 30, 1973. A skeleton staff continues to operate.

The months ahead will determine whether regional medical programs will be salvaged or scrapped. It is rumored that Regional Medical Program Services in Washington is planning a new mission statement and new review criteria. Certainly at this time, VRMP is struggling to survive.

FRANK ALTON WADE, M.D., *Chairman*

### Insurance Review

The Insurance Review Committee has, during the past twelve months, handled the greatest number of requests since its inception in the middle 1950's. Over 700 claim reviews were conducted at the request of the various carriers—proof in itself that The Medical Society of Virginia has been quite busy with peer review.

Just what the future holds for our Committee is difficult to predict at this time. It seems clear, however, that should the House of Delegates approve a plan of PSRO in Virginia, a large part of the present load would eventually be shifted to that program. It would, of course, quite likely take a while for any PSRO to properly prepare itself for such an assignment and the Committee will, therefore, continue to function until an effective transition can be accomplished.

We take this opportunity to again express our appreciation for the cooperation and understanding the Committee received throughout the year from those physicians whose claims for services were submitted for review. They have helped make a difficult job a great deal more pleasant.

BEVERLEY B. CLARY, M.D., *Chairman*

### 50-Year Club Members—1973

Emerson Macauley Babb, M.D., Ivor William Henry Batte, M.D., Norfolk  
Wyatt Sanford Beazley, Jr., M.D., Richmond  
George Alexander Bendlage, M.D., Luray  
William Evans Chapin, M.D., Richmond  
Francis Joshua Clements, M.D., Yorktown  
Albert Augustine Creevy, M.D., Newport News  
Clara King Dickinson, M.D., Radford



Herman Floyd Dormire, M.D., Virginia Beach  
Robert Arnold Hamrick, M.D., Williamsburg  
Frank Elmore Handy, M.D., Appalachia  
Rogers Newton Harris, M.D., Port Royal  
John Tribble Thomas Hundley, M.D., Lynchburg  
Walter Oscar Klingman, M.D., Charlottesville  
Ludwig Helmut Korn, M.D., Norfolk  
Homer Browning Luttrell, M.D., Pulaski  
John Andrew Mease, Jr., M.D., Dunedin, Florida  
Benedict Nagler, M.D., Lynchburg  
Fred Funsten Oast, M.D., Roanoke  
Waverly Randolph Payne, M.D., Newport News  
Harris Preston Pearson, M.D., Summerville, S. C.  
Herbert Lamont Pugh, M.D., Arlington  
Charles William Scott, M.D., Burkeville  
Thomas George Scott, M.D., Roanoke  
Caldwell Jackson Stuart, M.D., San Antonio, Tex.

Auditor's Report

THE MEDICAL SOCIETY OF VIRGINIA  
4205 DOVER ROAD  
RICHMOND, VIRGINIA

We have examined the financial statements of The Medical Society of Virginia, Richmond, Virginia, for the year ended September 30, 1973, as listed in the foregoing table of contents. With the exceptions noted in the immediately following paragraph, our examination was made in accordance with generally accepted auditing standards for associations of this kind and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The accounts receivable and accounts payable were not verified by direct confirmation; however, the amounts are not material in relation to the financial position as a whole.

It is our opinion that the Balance Sheet presents fairly the financial position of the Society at September 30, 1973, in accordance with generally accepted principles of accounting. The Statement of Income and Expenses is prepared on the basis of cash receipts and disbursements.

MITCHELL, WIGGINS & COMPANY  
Certified Public Accountants

October 5, 1973

BALANCE SHEET  
September 30 1973

ASSETS	
GENERAL FUND	
Cash in banks .....	\$271,985.92
Accounts receivable:	
Dues from members—Estimated	

collectible value—1972 Dues..	\$6,490.00
Advertising — Virginia Medical	
Monthly .....	1,100.60
	7,590.60
	<u>\$279,576.52</u>

BUILDING FUND	
Land and buildings—At cost .....	\$113,723.67
Furniture and equipment:	
Estimated value — October 1,	
1950 .....	\$5,353.11
Cost of acquisitions after Octo-	
ber 1, 1950 .....	9,896.44
	15,249.55
	<u>\$128,973.22</u>

NOTE: The accompanying notes to financial statements are an integral part of this statement.

LIABILITIES AND SURPLUS

GENERAL FUND	
Accounts payable:	
Preparation of Medical Journal—	
September 1973 .....	\$ 3,692.75
Surplus:	
Available for appropriation:	
Balance—September 30, 1973 .....	275,883.77
	<u>\$279,576.52</u>

BUILDING FUND	
Surplus invested in tangible property ....	\$128,973.22
	<u>\$128,973.22</u>

STATEMENT OF SURPLUS

For the fiscal year ended September 30, 1973

GENERAL FUND	
Balance—October 1, 1972 .....	\$297,006.63
Add:	
Excess of income over expenses .....	5,268.92
TOTAL .....	<u>\$279,275.55</u>
Deduct:	
Decrease in accounts receiv-	
able .....	\$3,320.34
Increase in accounts payable 71.44	3,391.78
Balance—September 30, 1973 .....	<u>\$275,883.77</u>

NOTE: The accompanying notes to financial statements are an integral part of this statement.

BUILDING FUND ASSETS

September 30, 1973

LAND AND BUILDING—At cost	
4205 Dover Road, Windsor Farms,	
Richmond, Virginia:	
Land .....	\$ 22,706.58
Office building .....	86,161.68
Furnishings and decorations .....	2,205.41
Lawn sprinkler system .....	2,650.00
TOTAL LAND AND BUILDING.....	<u>\$113,723.67</u>

OFFICE FURNITURE AND EQUIPMENT

Estimated insurable value at October 1, 1950..	\$ 5,353.11	
Purchased subsequent to October 1, 1950:		
Cost during fiscal year ended		
September 30, 1951.....	\$ 951.65	
Cost during fiscal year ended		
September 30, 1959 .....	6,749.65	
Cost during fiscal year ended		
September 30, 1971 .....	768.70	
Cost during fiscal year ended		
September 30, 1972 .....	1,426.44	9,896.44
TOTAL OFFICE FURNITURE AND		
EQUIPMENT .....	\$ 15,249.55	
TOTAL BUILDING FUND ASSETS.....	\$128,973.22	

IN GENERAL

The bookkeeping records were found to have been kept in a satisfactory manner.

Insurance in force at September 30, 1973, determined from policies on file, is shown as follows:

FIRE AND EXTENDED COVERAGE	
Building—Windsor Farms, Richmond, Virginia—80% Coinsurance .....	\$106,000.00
Office furniture and fixtures— 80% Coinsurance .....	\$ 15,000.00
BUSINESS LIABILITY	
Bodily injury .....	\$300,000.00
Property damage .....	\$300,000.00
Medical .....	\$ 250.00—\$ 10,000.00
AUTO LIABILITY—NONOWNERSHIP	
Bodily injury .....	\$300,000.00
Property damage .....	\$300,000.00
Medical .....	\$ 250.00—\$ 10,000.00
EMPLOYEE HONESTY BONDS	
Executive Secretary-Treasurer .....	\$ 5,000.00
Secretary .....	\$ 5,000.00
WORKMEN'S COMPENSATION .....	Standard

STATEMENT OF INCOME AND EXPENSES

For the fiscal year ended September 30, 1973

INCOME

Membership dues .....	\$214,025.25	
Less: Allocated as subscriptions to Journal.....	16,060.00	\$197,965.25
Interest on investments .....		8,851.56
Miscellaneous .....		39.33
Virginia Medical Monthly:		
Advertising .....	\$ 25,861.48	
Subscriptions: Members .....	16,060.00	
Nonmembers .....	842.90	42,764.38
TOTAL .....		\$249,620.52



EXPENSES

Salaries .....	\$ 88,920.00	\$ 88,420.00
Telephone .....	2,969.75	2,200.00
Postage .....	2,096.27	2,000.00
Stationery and supplies .....	3,239.65	2,500.00
Office equipment—Repairs and replacements .....	1,838.33	2,500.00
Building maintenance and repairs—Net .....	11,816.66	12,500.00
Convention expense .....	6,838.34	6,600.00
Council and committee expense .....	2,869.86	3,800.00
Travel: Executive assistant .....	303.22	400.00
Component society liaison .....	497.25	1,100.00
Executive secretary .....	1,493.12	1,700.00
Delegates to American Medical Association .....	3,632.54	4,800.00
President's expense .....	1,278.36	3,000.00
Preparation and distribution of Medical Journal .....	43,510.16	45,000.00
Legal expense .....	19,026.34	16,000.00
Walter Reed Commission .....	500.00	500.00
Woman's Auxiliary .....	110.74	100.00
Membership dues—Affiliated agencies .....	680.00	660.00
Editor—Virginia Medical Monthly .....	1,000.00	1,000.00
Special appropriations:		
Virginia Council Health and Medical Care .....	5,000.00	5,000.00
American Medical Education Foundation .....	1,000.00	1,000.00
Scholarship: Virginia Commonwealth University—Medical		
College of Virginia .....	2,000.00	2,000.00
University of Virginia .....	2,000.00	2,000.00
Reception—Dr. Palmer .....	2,135.22	3,000.00
Other special appropriations .....	1,956.72	3,250.00
Virginia Medical Political Action Committee .....	12,000.00	12,000.00
News and Views .....	941.85	300.00
Emp'oyees' retirement fund .....	19,477.68	18,000.00
Payroll taxes .....	4,095.25	4,400.00
Miscellaneous .....	813.83	725.00
Public relations .....	310.46	2,000.00
TOTALS .....	\$244,351.60	\$248,455.00
EXCESS OF INCOME OVER EXPENSES .....	\$ 5,268.92	

NOTE: The accompanying notes to financial statements are an integral part of this statement.

NOTES TO FINANCIAL STATEMENTS

*September 30, 1973*

NOTE 1—A summary of significant accounting policies applied in the preparation of the accompanying financial statement is set forth as follows:

The Society employs a modified accrual method of accounting. General revenues are recorded when received, while interest on investments is recorded as earned. Expenses are recorded when paid without encumbrance of budget appropriations at the time liability is incurred.

Acquisition of property is recorded as capital outlay in the year purchased.

A general fixed assets group of accounts are maintained at cost and insurable value as shown in Building Fund Assets, with no depreciation being provided in the accounts.

NOTE 2—The Society has in force a noncontributory retirement plan covering employees qualified, with retirement at age 65. The plan is administered by The Manufacturers Life Insurance Company, Toronto, Canada. The contribution during the current year amounted to \$19,477.68.

FINANCIAL CONDITION

The financial condition of the Society at September 30, 1973, is shown in the balance sheet on the accrual basis of accounting. A comparative summary of the financial condition at September 30, 1973, and September 30, 1972, is presented as follows:

	SEPTEMBER 30, 1973	1972	INCREASE DECREASE*
ASSETS			
Cash .....	\$271,985.92	\$266,717.00	\$5,268.92
Accounts receivable .....	7,590.60	10,910.94	3,320.34*
Land, buildings and equipment .....	128,973.22	128,973.22	—
TOTALS—ALL FUNDS .....	<u>\$408,549.74</u>	<u>\$406,601.16</u>	<u>\$1,948.58</u>

#### LIABILITIES, SURPLUS AND FUND BALANCE

Liabilities:			
Accounts payable .....	\$ 3,692.75	\$ 3,621.31	\$ 71.44
Surplus:			
General Fund .....	275,883.77	274,006.63	1,877.14
Fund balance:			
Building Fund .....	128,973.22	128,973.22	—
TOTALS—ALL FUNDS .....	<u>\$408,549.74</u>	<u>\$406,601.16</u>	<u>\$1,948.58</u>

#### CASH—\$271,985.92

Recorded cash receipts were accounted for by deposits in the various banks and disbursements were supported by properly signed and endorsed cancelled checks. The balances on deposit at September 30, 1973, were verified by direct correspondence with the banks and examination of certificates and passbooks on hand as follows:

First and Merchants National Bank—Checking account .....	\$ 98,512.34
Bank of Virginia—Savings account .....	14,077.55
Southern Bank and Trust Company—Savings account .....	1,977.30
Franklin Federal Savings and Loan Association—Savings account .....	21,063.66
Richmond Federal Savings and Loan Association—Savings account .....	30,131.67
First Federal Savings and Loan Association—Savings account .....	14,351.25
Security Federal Savings and Loan Association—Savings account .....	14,425.61
First Federal Savings and Loan Association—Savings account .....	13,399.57
Providence Savings and Loan Association—Savings account .....	20,648.69
First and Merchants National Bank—Certificate of deposit .....	10,000.00
United Virginia Bank—Certificate of deposit .....	30,000.00
United Virginia Bank—Savings account .....	3,398.28
TOTAL .....	<u>\$271,985.92</u>

#### BUILDING FUND ASSETS—\$128,973.22

Details of the building fund assets are shown in a separate schedule. No indebtedness against these assets was disclosed by the records.

### OPERATIONS

The results of operations for the fiscal year ended September 30, 1973, are shown in the statement of income and expenses prepared on the cash receipts and disbursements basis. A summary of income and expenses for the current year is compared with the preceding year as follows:

	SEPTEMBER 30, 1973	1972	INCREASE DECREASE*
INCOME			
Membership dues—Net of subscription to Journal....	\$197,965.25	\$188,200.06	\$ 9,765.19
Medical Monthly publication .....	42,764.38	46,746.51	3,982.13*
Other operating income .....	8,890.89	10,271.52	1,380.63*
TOTALS .....	<u>\$249,620.52</u>	<u>\$245,218.09</u>	<u>\$ 4,402.43</u>
EXPENSES .....	<u>244,351.60</u>	<u>234,233.58</u>	<u>10,118.02</u>
INCOME IN EXCESS OF EXPENSES .....	<u>\$ 5,268.92</u>	<u>\$ 10,984.51</u>	<u>\$ 5,715.59*</u>



# Woman's Auxiliary . . . .

## Awards

At the annual luncheon of the Woman's Auxiliary to The Medical Society of Virginia, the following awards for the past year were presented:

Ribbons for scrapbooks were in two categories—for auxiliaries that numbered more than 75 members and to those whose membership is under 75. The Newport News Auxiliary won the blue ribbon for more than 75 members and Richmond and Fairfax were awarded the red ribbon for second place. Virginia Beach was the recipient of the blue ribbon for first place in the under 75 members.

From Health Manpower the Roanoke Auxiliary received the silver tray and certificates of merit went to Lynchburg and Rockingham.

Roanoke also received a certificate for the greatest increase in membership and a Health Education special award was given the Arlington Auxiliary.

A silver tray from Community Service went to Tazewell in recognition of their efforts in keeping their hospital manned when the employees went on strike. Norfolk and Newport News also received certificates of merit.

The Margaret Howard Award for Doctor's Day to the Auxiliary of more than 50 members went to Roanoke. For the fourth time, Wise County won the award for auxiliaries of less than 50 members. In the pre-convention board meeting, it was voted to name this last award in honor of Mrs. Nash Thompson, so the Wise County award has been named the Opal Thompson Award.

AMA-ERF Chairman, Naomi Beckenstein recognized all auxiliaries that had shown an increase over last year. Those who had attained the goal of \$10.00 per capita were named. A special recognition went to the Fairfax Auxiliary who had the largest per capita contribution to AMA-ERF and to the Southwestern Auxiliary for the largest percentage increase.

NAN FREED (MRS. CHARLES C., JR.)  
*Publicity Chairman*

## VaMPAC 1973-1974

Through October 4, 1973, the VaMPAC program has approximately 1,100 members. Out of this 1,100 members, 38 are Woman's Auxiliary members. The VaMPAC program is growing rapidly each year, but the women members have not grown as we would like to see them. In politics today, the woman plays as big a part as does the man; and for this reason, VaMPAC would like to see more physicians wives come into the fold.

The Board of Directors of VaMPAC increased the membership dues in VaMPAC for a Woman's Auxiliary member from \$15.00 to \$25.00. This means in 1974, a joint membership for the physician and his wife will be \$50.00; where it had previously been \$40.00. This is the practice of most of the state PACs throughout the nation, putting the women members on an equal footing with the physician members.

VaMPAC has been very much involved in the gubernatorial race in Virginia this year. The VaMPAC Board of Directors and the physician population of Virginia have given considerable support, monetarily and otherwise, to the candidacy of former Governor Mills E. Godwin, Jr. Governor Godwin was the principal speaker at the VaMPAC annual banquet held in Norfolk on October 18, 1973. There was a sell-out crowd, and everyone who was present expressed their enjoyment of both the dinner and the speeches. VaMPAC is gearing up for the Congressional races in 1974, and it is anticipated that many of our veteran Congressmen who VaMPAC and medicine has supported over a period of years will face stiff opposition in the forthcoming elections. This is all the more reason why both physicians and their wives need to rise to the occasion and make this program stronger than ever by their memberships and influence. VaMPAC has been characterized many times as "medicine's first line of defense".

ROBERT G. STUART  
*Executive-Secretary*  
VaMPAC

## The Tides

### (Circadian Rhythm Revisited)

THE STORY OF THE TIDES is a story of forces, only vaguely plumbed, which affect our whole world. We all respond to the tidal pull, "Ebbe und Flut des Meeres", as the Germans describe it, and involuntarily react physiologically, mentally, emotionally and in many other ways to this awesome rhythm. The air, the earth, and especially the oceans, are altered rhythmically to this tidal flow, a cosmic force extended across the emptiness of space to create a pulse felt over our entire planet.

Tide origins, like all gravitational forces, are proportional to the mass they attract. Oceans, as opposed to air and land, are naturally affected the most, however air and land tides may be measured.

*Newton's Equilibrium Theory* assumed an ideal ocean of equal depth, covering the entire earth. This considers tides as statical problems. This theory explains the occurrence of semi-diurnal tides. When the moon does not stand above the celestial equator, the huge "tide mountains" are not symmetrical with respect to the earth's axis, and during the earth's daily rotation, a diurnal inequality comes about between two tidal waves occurring the same day. Also, when the moon is over the celestial equator, the diurnal inequality disappears. This theory of Newton's, however, assumes an ideal ocean and constant equilibrium between tide generating forces and pressure exerted. These forces, of course, do not exist in this fashion, nor does the so-called "ideal ocean".

The Frenchman, Laplace, built on Newton's theories and produced his dynamic theory of the tides. This allowed for a tidal wave's period to correspond to opposite and other forces exerted. This permitted a sum total effect, which allows for a compilation of the total volume of water mass encompassed in the ocean basins (of whatever size or shape), the *Coriolis force* (the effects of the rotation of the earth), and friction. Northern and Southern Hemispheres tend to cancel out the forces of each other (a tendency to deflect particles to the right in the Northern Hemisphere and to the left in the Southern Hemisphere). This is best described as the gyroscopic and frictional effect. The net effect is zero at the equator. These forces obviously play a large, if not decisive part in the formation of tidal currents and/or ocean tides and demonstrate the extremely complex and complicated *Dynamic Theory of the Tides* of Laplace. The practical significance, naturally, is to allow us to predict, fairly accurately, the course of the tides



for any given place on a coastline. Mathematical calculations involve harmonic oscillations, as well as other studies, which are given as the sum of all forces with a resultant net effect. We may categorically state, then, that the amplitude and phase of a given tide will not change with time and will be essentially characteristic for a certain coastline location, thus allowing us to predict the tide at any future moment. This allows us to better understand the tremendous forces pulling and pushing the huge (fifteen foot high and one mile across) Amazon River tidal waves (the Amazon River has the longest tidal stretch of any river at 500 miles), or the tides of the Bay of Fundy, New Brunswick, with their range of sixty to seventy feet between high and low waters. Mont-Saint-Michel, off the coast of Normandy, may be reached by land only during low water (and yet these same roads may be nearly forty feet below water at high tide). Most of the great ports are on tidal rivers near shallow coastal waters where tide range is often of consequence. It may be of interest to note that the tide rises one time per day in Manila, Philippine Islands, and Lake Pontchartrain, Louisiana, and two times per day in San Francisco, California, Norfolk, Virginia, etc.

A typical tide period is 12 hours and 25 minutes—hence high tide is observed about 50 minutes later each day. The range of tides changes every day. High tides keep rising higher and low tides drop lower each day, with maximum ranges occurring about every 14 days. “Spring tides” are so-called when the range is large, and “neap tides” when the range is small. The range of tides varies with the season. Highest highs and lowest lows occur near the time of the solstices—in June and December. This is also the time of maximal diurnal inequality. During Spring and Fall, near the equinoxes, the diurnal inequality is minimal and the ranges are close to average for the year. A “stage of tide” does not appear simultaneously at all points of a coastline. On the West Coast of the United States, the “tidal wave” progresses northward at about 150 m.p.h.

Tidal currents are generally weak except in shallow waters near the continents, and their direction of flow changes continuously throughout the day.

Fourier proved that series of events that repeat exactly, time after time, can be represented by a series of sinusoidal curves. Tides fit neatly into this theory, and hence may be predicted exactly for future times and places. Since we know the orbits of the celestial bodies that induce tides, the periods and frequencies of the sine waves needed to represent the tides can be determined. The Tidal Institute in Liverpool, England, The U.S. Coast and Geodetic Survey, and others, plot the tides for the world areas.

Lord Kelvin first designed a machine (1872) to record resultants of tidal constituents and allow for prediction of tides. This was the beginning of the use of the computer machine putting into practical effect Laplace's theories.

We know now there are tides in the Atmosphere as well as the Ionosphere which oscillate and may be measured. These involve thermal and magnetic forces, among others. By the same token, land tides are measured by sensitive instruments embedded in or stationed on the earth's crust. The earth's atmosphere exerts different pressures as the barometer rises or falls. This is a part of the equation demonstrating land tides.

Man, armed with knowledge of the regular rhythmic oscillations of the tides (of sea, air, earth), is in a better position to understand some of the factors now emerging, and the extreme importance of them for our general well being, and even survival, utilizing the physiological clocks of man and all living creatures as alluded to in earlier articles by this writer. The timing of our medical-surgical approach to patients should be vastly improved if we bear in mind certain elemental facts. Even the great Julius Caesar himself ruefully accounts in his *Gallic Wars* how he temporarily was halted by the forces of nature, when landing on the shores of Great Britain, by his ignorance of local tides.

Recent research in the field of tidal and lunar rhythms has demonstrated a cooperation of circadian rhythms differing a little, e.g. 0.8 hour in the length of a single period. These differences result in intervals corresponding to the lunar cycles. This helps us understand the so-called mystery of lunar periodicities, going on in constant laboratory conditions. The biological clock, even if consisting primarily of oscillations of a physical nature, may regulate many biochemical processes, including physiological phenomena in cells and tissues, so that they all become diurnally periodic. Also, alterations in physical properties can regulate metabolic processes by influencing enzyme activities.

Hence, in an area where the tides are daily, one low and one high water occur each lunar day. Many animals living in these rhythmically changing environments behave in a manner which attunes them to tidal fluctuations. Motor activity, oxygen consumption, and color change are among the physiological processes exhibited in these creatures. Crabs, oysters, flatworms, sea anemones, quahogs, mussels, clams, and many other species show easily demonstrated changes corresponding to luni-tidal changes even when remote from their native habitat. The phases of the lunar day cycle may be measured in these specimens.

The coinciding of the solar and lunar periodicity with tidal periodicity comprise exogenous rhythms. These, in conjunction with endogenous rhythms, have been shown to affect all living creatures, including man. Thus, the tides may be shown to have a tremendous influence on man, directly and indirectly.

ROBERT E. MITCHELL, JR., M.D.



## Franco and Those Spanish Juans

**A** RECENT TRIP to southern Spain threw little or no light on the practice of medicine in that country. Language barriers and an apparent reticence on the part of Spanish physicians prevented the formation of any firm ideas by your visiting correspondent. In lieu of medical data the writer will touch only on some peripheral matters. Fortunately, readers who desire knowledge about Spanish medicine may obtain abundant information from the excellent editorials by the late Felix Marti-Ibanez and the numerous definitive articles on Iberian medicine in MD.

The many middle-age amputees encountered everywhere in Spain are reminders of their bloody Civil War which immediately preceded World War II. Although their war was shorter than ours, the Spanish suffered twice as many casualties as did we in our American Civil War. At the end of that conflict there were no communists left in Spain. A visit to that country is a constant reminder of General Francisco Franco's durability. Thirty-four years after his rise to power visitors are aware that he is still "The Boss".

The Spanish are generally a pleasant and nice-looking people. One of Franco's preferences—and it is shared by many of the writer's generation in this country—is that teen-age boys should be readily identifiable from teen-age girls. And so it is in Spain. Hippies are noticeably—and pleasantly—absent. The story is told that long-haired males are required to trim their locks before they are permitted to cross the frontier into the country. The teen-age girls are usually neat and attractive, but a few years and a few babies later, they grow to resemble their mothers.

Drugs are definitely on Franco's black list, as is pornography, and the book and magazine stands are rather dull by American standards. Dogs do not have the social status in Spain they enjoy in England but they are everywhere in evidence. They are usually tan in color and of a confused and undistinguished ancestry. Generally they appear well behaved and no dog fights were seen. Perhaps they too have gotten the word from Franco.

The Spaniard and the house fly seem to have worked out an agreement. If there are no screens in the windows the flies do not come in—except at meal-time. They differ from our domestic fly, for ours are bigger and perhaps better, but theirs are definitely more agile. They are also more alert than their American cousins and take evasive action with a correspondingly higher survival rate. A contest with a Spanish fly is a far more sporting event than a bout with our sluggish Southern house fly.

Pedestrians in Spain lead an adventurous and exciting life. It is generally understood by the man-on-foot that the motorist has priority under most conditions, and the pedestrian does not appear to resent being nudged from

the highway. All of this is done at the expense of much horn-blowing. A news item appeared in *The Iberian Daily Sun* releasing a survey by an undisclosed American university recording the number of horn blasts made at intersections in major cities around the world. The researchers found that Arab drivers blew a world record of 1,150 times an hour compared with 21 toots by London motorists. Perhaps modesty prevented any mention of Spanish drivers, but they can't be far behind the Arabs.

A brief stay in Spain is adequate to alert the visitor that Franco has not devoted too much attention to the Spanish juans. The rain, we are told, falls mainly in the plain, but much of this water unquestionably finds its way through the leaking taps and running johns of hotels of both high and low degree. To the casual observer the fixtures, though undeniably diminutive, are rather trim and attractive. Closer familiarity reveals they are fragile and full of idiosyncracies. The problems that arise during the day can generally be dealt with, but the sounds of steady trickles and occasional gurgles that emanate from the bathroom do not lull one to sleep. A short but intensive rotating service on GU, admittedly many years ago, was of little aid to the writer, and even now he can hear in his mind's ear, just as he dozes off, the assorted sounds of rushing Spanish waters.

Time is not on Franco's side for he has entered his ninth decade, but in view of his many triumphs in the past, the writer is still hopeful that the Generalissimo can cope with his country's plumbing and future visitors will have to find something else to write about.

H.J.W.

### **The McGuire Clinic's Golden Anniversary**

*The Virginia Medical Monthly* congratulates the McGuire Clinic on the 50th Anniversary of its founding. On December 1, 1923, Dr. Stuart McGuire and 13 associates established the first medical clinic in Virginia and the second in the South.

The original members associated with Dr. McGuire were Doctors W. Lowndes Peple, R. C. Fravel, Beverley F. Echols, William Tate Graham, Garnett Nelson, Hunter H. McGuire, Samuel Budd, John Bell Williams, Guy R. Harrison, A. L. Gray, John L. Tabb, Virginius Harrison and W. R. Weisiger.

The Clinic will move shortly to a new location in the far west end of Richmond. The journal wishes the McGuire Clinic every success; may it continue to be as helpful to the sick of Richmond and Virginia as it has during the past half century.

H.J.W.



## Calendar of Events

"PROBLEMS ACCOMPANYING WITHDRAWAL OF STEROID THERAPY"—Continuing Education Program sponsored by University of Virginia School of Medicine—Kings' Daughters Hospital—Staunton—January 8, 1974.

LOMBARDI CANCER SYMPOSIUM—An Interdisciplinary Symposium sponsored by Georgetown University School of Medicine—Basic Science Building—Georgetown University School of Medicine—Washington, D.C.—January 18, 1974.

"IMMUNIZATIONS WITH PARTICULAR EMPHASIS ON THE NEW PROGRAMS"—Continuing Education Program sponsored by the University of Virginia School of Medicine—Waynesboro Community Hospital—Waynesboro—January 22, 1974.

"ROCKY MOUNTAIN SPOTTED FEVER AND THE NERVOUS SYSTEM"—Continuing Education Program sponsored by the University of Virginia School of Medicine—Langley Air Force Base—Hampton—January 24, 1974.

AMA NATIONAL LEADERSHIP CONFERENCE—Marriott Motor Hotel—Chicago—January 25-27, 1974.

"FAMILY PRACTICE PROGRAM IN THE UNITED STATES AND ENGLAND"—Continuing Education Program sponsored by the University of Virginia School of Medicine—Kings' Daughters Hospital—Staunton—February 5, 1974.

"WHAT'S NEW IN BURNS"—Continuing Education Program sponsored by the University of Virginia School of Medicine—Waynesboro Community Hospital—Waynesboro—February 26, 1974.

"NEO-NATAL AND SMALL BABY PROBLEMS"—Continuing Education Program sponsored by University of Virginia School of Medicine—Southwest Virginia Conference Circuit—February 27-28, 1974.

"DIABETES—NEW CONCEPTS AND DEVELOPMENTS"—Continuing Education Program sponsored by University of Virginia School of Medicine—Southwest Virginia Conference Circuit—February 27-28, 1974.

AMA-AMPAC PUBLIC AFFAIRS WORKSHOP—Washington-Hilton Hotel—Washington, D. C.—March 15-17, 1974.

TRI-STATE MEDICAL ASSOCIATION—Annual Meeting—Hotel Roanoke—Roanoke—March 21-24, 1974.

NATIONAL CONFERENCE ON RURAL HEALTH—Sponsored by AMA—Detroit-Hilton Hotel—Detroit, Michigan—April 25-26, 1974.

SEABOARD MEDICAL ASSOCIATION—Annual Meeting—Holiday Inn—Nags Head, North Carolina—June 13-16, 1974.

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The Medical Society of Virginia maintains a registry of medical meetings and programs of interest to Virginia physicians. You can help by keeping us advised of any meetings scheduled in your area. This will not only help others avoid conflicts but also provide helpful information on opportunities for continuing education.

## New Members.

The following members were received into The Medical Society of Virginia during the month of September:

Paul Henry Andreini, M.D., Washington, D. C.  
Pablo P. Barongan, M.D., Norton  
Salvatore D. Barranco, M.D., Blacksburg  
John T. Benjamin, M.D., Charlottesville  
Ziyaettin Asim Boynuk, M.D., Front Royal  
Dean Clark Brick, M.D., Mechanicsville  
Richard Bernard Caspari, M.D., Richmond  
James G. Chandler, M.D., Charlottesville  
John Scott DeVerter, M.D., Roanoke  
John Lynn Dobson, M.D., Virginia Beach  
Richard L. Gaertner, M.D., Vienna  
Daniel H. Gregory, II, M.D., Richmond  
Fang S. Horng, M.D., Luray  
Felix A. Hughes, III, M.D., Virginia Beach  
Samuel Boykin Hunter, M.D., Richmond  
William A. Isenhour, M.D., Blacksburg  
Manohar L. Kapur, M.D., Suffolk  
Chun-Sheng Lee, M.D., Falls Church  
Rory Tsang Yi Lee, M.D., McLean  
Stuart Fred Mackler, M.D., Radford  
Ramon Giron Navarro, Jr., M.D., Virginia Beach  
Wayne Coleman Nickens, M.D., Washington, D. C.  
Robert Lloyd Pinnar, M.D., Falls Church  
Angel I. Portela, M.D., Emporia  
Richard Chute Potter, M.D., Petersburg  
Francisco E. Ramos-Acosta, M.D., Petersburg  
Wallace P. Ritchie, M.D., Charlottesville  
Stephen Quarles Rodgers, M.D., Nassawadox  
Milton A. Saunders, Jr., M.D., Virginia Beach  
Fred Thomas Shaia, M.D., Richmond  
Samuel G. Showalter, M.D., Wise  
Perla J. Solinap, M.D., Norfolk  
Virgilio Conlu Supetran, M.D., Hopewell  
Raymond H. Whitney, M.D., Virginia Beach  
Robert M. Wilson, M.D., Virginia Beach  
Nancy Garrett Witt, M.D., Fishersville  
Frank G. Wray, M.D., South Boston

## The Medical Society of Virginia.

Minutes of the annual meeting of the Society, held at Holiday Inn/Scope, Norfolk, are included in this issue of the Monthly. Dr. John A. Martin, Roanoke, was installed as president, succeeding Dr. Carl E. Stark, Wytheville. Dr. William R. Hill, Richmond, was named president-elect. A full list of the officers is included in the minutes.

There were 545 doctors, 134 ladies, 107 exhibitors, and 24 affiliates registered, making a total of 810.

The A.H. Robins Award for Community Service was presented to Dr. Fletcher J. Wright, Jr., Petersburg.

The next annual meeting will be held in Williamsburg, November 3-6, 1974.

## Northern Neck Medical Association.

The fall meeting of this Association was held on October 25th at The Tides Inn, Irvington. Dr. William Bakewell, Jr., Professor of Psychiatry at the University of North Carolina, was the guest speaker and presented a paper on Office Treatment of the Anxiety-Depression Syndrome.

Dr. Horace Kerr, Colonial Beach, was installed as president; Dr. J. B. Davis, White Stone, president-elect; Dr. Harvey Goode, Kilmarnock, vice-president, and Dr. N. R. Tingle, Lively, secretary-treasurer (re-elected).

## POW Physicians.

At the meeting of the American Medical Association, Dr. Floyd H. Kushner, Danville, was honored by The Medical Society of Virginia as being the only medical prisoner of war from Vietnam. He was presented a Certificate of Distinguished Service and made an Honorary Member.

As a follow-up of this award, the Council of The Medical Society of Virginia decreed that all Virginia physicians who had been prisoners of war in any military action participated in by the United States deserve to be recognized and honored by the Society. Therefore, Certificates of Distinguished Serv-



ice were prepared and presented to the following doctors at the annual meeting:

Dr. Townsend R. Artman, Suffolk  
Dr. Herbert W. Coone, Manassas  
Dr. Lester I. Fox, Ft. Monroe  
Dr. Gene N. Lam, Virginia Beach  
Dr. J. H. Moorman, Jr., Martinsville  
Dr. Leo D. Pepa, Salem  
Dr. Alfred L. Smith, Richmond

If any of our readers know of other Virginia physicians who should be similarly honored, we would appreciate your notifying the office of their names.

#### **Dr. Richard E. Palmer,**

Alexandria, has been elected vice-chairman of the Board of Trustees of the American Medical Association.

#### **Dr. Robert D. Shreve,**

Altavista, was recently elected president of the Virginia Association of Professions.

#### **J. Shelton Horsley Memorial Awards.**

The Virginia Division of the American Cancer Society has presented the J. Shelton Horsley Memorial Awards to his grandson, Dr. J. Shelton Horsley, III, University of Virginia, and to Dr. Walter Lawrence, Jr., Medical College of Virginia.

#### **Dr. Charles Scott,**

Farmville, retired medical director of Piedmont State Hospital, has been named Virginia's 1973 honorary Christmas Seal campaign chairman.

## **Obituary . . . .**

#### **Dr. Seward.**

Dr. Blanton Page Seward died August 25, 1973, at the age of 76 after several years of declining health.

He was born in Surry County and graduated

#### **Dr. David B. Kruger,**

Norfolk, has been reappointed by Governor Holton to the State Mental Health and Mental Retardation Board for a term of four years.

#### **Family Practice Associate Desired**

By young GP on Maryland's Eastern Shore for rapidly growing Family Practice. Fully equipped and staffed office. Hospital privileges available. Excellent hunting, fishing, sailing. Financial arrangements negotiable. Phone 301-476-3790 or write Ronald C. Lenthall, M.D., P. O. Box 131, Trappe, Maryland 21673. (Adv.)

#### **Medical Building—Manassas, Virginia.**

Design your own suite in the beautiful new four story Doctors' Center. Best location adjacent to open staff general hospital and doctors' park. Manassas is located about 20 miles from downtown Washington, in the middle of the fastest growing county. Present 165 bed hospital is projected to expand to 500 beds within 5-6 years. Unique opportunity for GP or all specialties in this prime location. Inquire L. T. Gravatte, 5515 Cherokee Avenue, Alexandria 22312. Telephone 703-354-8500. (Adv.)

#### **Emergency Room Physician.**

Accredited 280 bed progressive general hospital in beautiful Huntington, West Virginia. Excellent income and working conditions. Send resume to Assistant Administrator, Cabell Huntington Hospital, 1340 Sixteenth Street, Huntington, West Virginia 25701. (Adv.)

from the University of Richmond in 1918 and Medical College of Virginia in 1922. He interned at Stuart Circle Hospital, Richmond, from 1922 to 1923. Dr. Seward engaged in general practice in Isle of Wight and Surry Counties from 1923

to 1924 before becoming associated with Dr. Manfred Call in Richmond from 1925 to 1928. In the autumn of 1928 he located in Roanoke on the Medical Staff of the Lewis-Gale Hospital. Dr. Seward carried on an active practice of Internal Medicine until his retirement in October 1967. Dr. Seward was a Diplomate of the American Board of Internal Medicine.

He was a member of the First Baptist Church, the Roanoke Academy of Medicine, The Medical Society of Virginia, the American Medical Association, a Fellow of the American College of Physicians and a Fellow of the Royal Society of Medicine of England. He was for years a member of the Roanoke Chamber of Commerce. During his most active years he published 18 papers on clinical medical topics as well as a study of pioneer medicine in Virginia, which appeared in the *Annals of Medical History* in 1939.

Dr. Seward is survived by his wife, one daughter, two brothers, and eight grandchildren.

Dr. Seward's friends will remember him as a warm kindly person, who always wore a fresh boutonniere. His love of flowers is reflected in the gardens of his Nottingham Road home.

The Roanoke Academy of Medicine wishes by this resolution to express its deepest sympathy to the family of Dr. Blanton Seward and requests that a copy of this resolution be sent to Mrs. Seward and that a copy be sent to The Medical Society of Virginia for publication in the *Virginia Medical Monthly*.

ROBERT F. BONDURANT, M.D.  
WARREN L. MOOREMAN, M.D.  
FRANK ALTON WADE, M.D.

### **Dr. Smith.**

Dr. Harry LeCato Smith, Jr., a long and faithful member of the Albemarle County Medical Society, died on June 16, 1973. Dr. Smith graduated from the University of Virginia School of Medicine in 1937. After graduating from medical school he continued his training in New York City, after which he returned to Charlottesville to go into general practice. After a period of time in general practice, Dr. Smith became interested in obstetrics. He gave up his practice to take postgraduate training in this area, after which his practice was limited to obstetrics.

As a dedicated physician, he placed the highest priority on assuring that his patients received the best of care. Although he was busy in his practice he was a devoted husband and father to his wife and three children who survive him. He had the respect and friendship of his colleagues and he will be greatly missed.

THEREFORE BE IT RESOLVED, that the Albemarle County Medical Society expresses its gratitude for having been allowed to know and work with him, and its deep and sincere regret at his passing.

BE IT ALSO RESOLVED, that a copy of this resolution be spread upon the minutes of the Albemarle County Medical Society, and that a copy be forwarded to his family and to the *Virginia Medical Monthly* for publication.

### **Dr. Vranian.**

Dr. George Vranian entered this life 55 years ago destined to serve his church, his family, his friends and his patients with love and dedication.

With all his heavy responsibilities, George found time to participate fully in his church activities. He was generous in this service, physically, financially and morally. He was extremely proud of his church and talked of it often.

Left are his wife and their three children. George deeply loved his family and its unity.

There were many friends in George's life and always he would greet them warmly and enthusiastically.

For twenty-four years he practiced medicine in Richmond and throughout this time served his patients with warmth, love, understanding and good medicine. They in turn loved him and felt that they had lost both a doctor and a friend.

George graduated from the University of Richmond in 1940 with a B. S. degree. In 1943 he graduated from the Medical College of Virginia and interned there for one year. He then went to Mount Alto Hospital in Washington, D. C., for an Internal Medicine Residency.

He was on the staff of Richmond Memorial Hospital and the Retreat Hospital where he served a term as president of the staff.

Besides being a member of the Academy, he was a member of The Medical Society of Virginia, the American Medical Association and the Southern Medical Association.

ROBERT K. DULEY, M.D., *Chairman*



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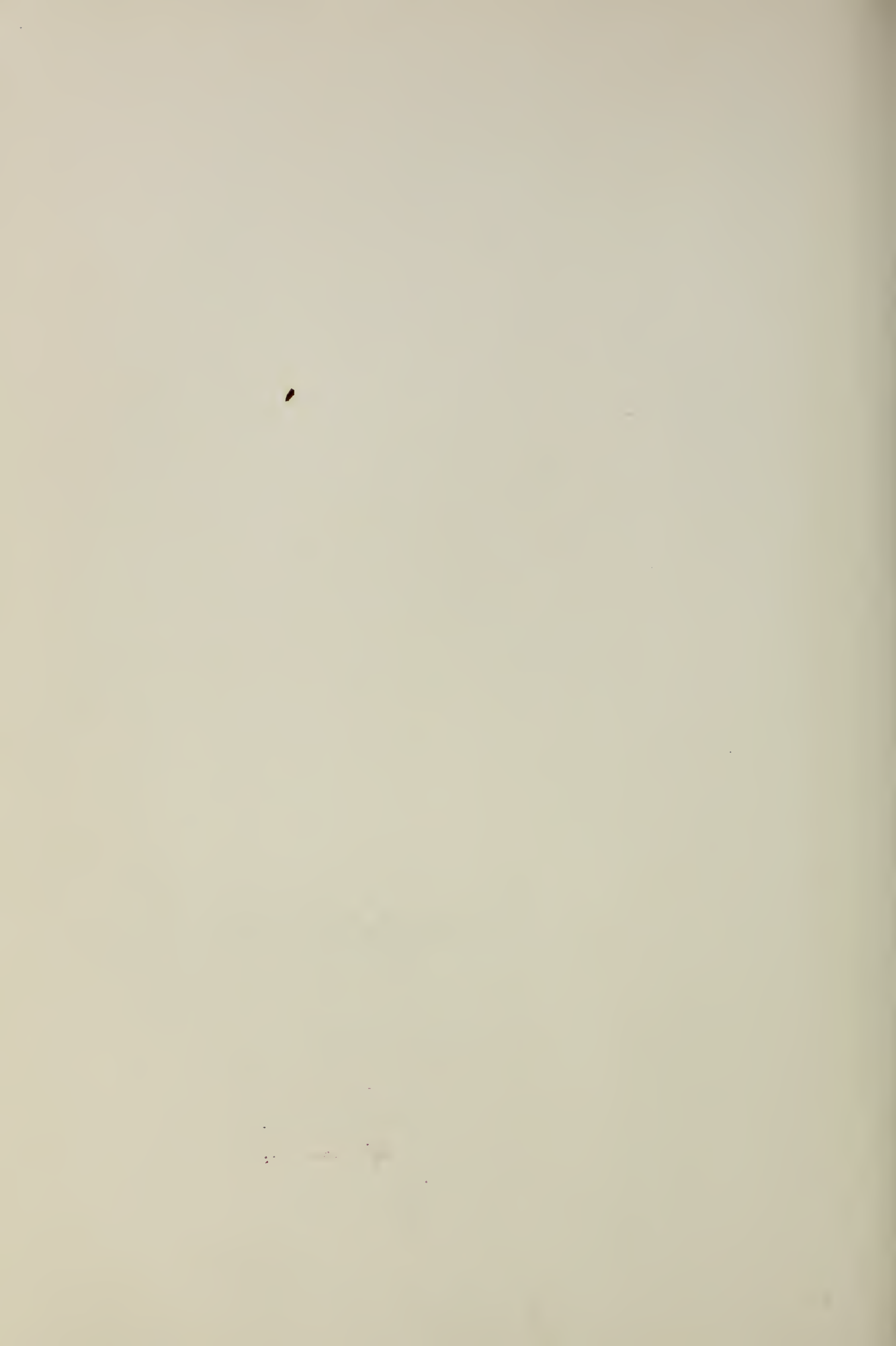














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